# THE REPORT
## Abu Dhabi 2013

ECONOMY
BANKING
INSURANCE
TRANSPORT
ENERGY
TOURISM
REAL ESTATE
TELECOMS & IT
INDUSTRY
CAPITAL MARKETS
CONSTRUCTION
INTERVIEWS

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Where the Man
meets the Soil.

aldahra agriculture

# The long view

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Supported by high oil prices and increased production, the emirate has been using its hydrocarbons earnings to promote development in other sectors. The oil and gas industry currently accounts for about 60% of GDP, however, the government aims to reduce this to 36% by 2030. Initiatives are being implemented that should boost foreign investment, improve skills and training, and develop business capacity.



# Managing growth

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The sector is set to remain strong as the government emphasises strategic development and regulation to target current vulnerabilities which will make for improved efficiency and security. Despite challenges in recent years, the emirate's banks have maintained profitability and are expecting further growth in lending throughout 2013, with the top five banks recording significant and continued expansion.

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# Room for more

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The UAE's 97.8bn barrels of proven reserves are expected to be able to maintain production at current rates for around 80 years with an estimated 70% ultimate recovery rate. The goal of boosting oil output to 3.5m bpd by 2018 fits well in line with these estimates, and advanced techniques are being deployed to recover ever greater quantities of oil and gas

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## AL GHARBIA



## AL AIN



## EDUCATION

## New frontiers

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With diversification away from hydrocarbons a priority, the emirate has targeted a number of segments for expansion, including petrochemicals, aluminium and steel, both via direct government action and public-private partnerships. Meanwhile, expanding retail demand has prompted an uptick in the construction of shopping centres, including several new high-profile projects.

## Swings and roundabouts

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The sector has seen declines over recent years, but it is now thought to be rounding out the bottom of the cycle. The government remains the main driver of real estate projects, but it is also encouraging private players as well. Several major transport infrastructure projects, including a $6.8bn expansion for Abu Dhabi International Airport, are currently under way.

## Meeting diverse challenges

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Tied into Economic Vision 2030, collaboration at the local and federal level is targeting education reform, with the aim of boosting e-learning in the classroom and raising design standards for schools. Among the efforts afoot are the creation of more vocational and new diploma courses. The expanded recruitment of English-speaking teachers is also now well under way.

## Tech nation

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The private sector accounts for an increasing proportion of ICT spending, as the trend towards outsourcing gathers pace. Telecoms firms continue to invest in the country's physical infrastructure, which ranks among the most advanced in the world and the market exhibits a high penetration rate.

# Abu Dhabi in figures

**Foreign trade indicators, 2009-11 (% of GDP)**

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Total exports | 40.1 | 48.5 | 51.7 |
| Oil, gas & oil products exports | 36.7 | 44.8 | 48.8 |
| Non-oil exports | 1.8 | 1.9 | 1.4 |
| Re-exports | 1.6 | 1.8 | 1.4 |
| Imports | 17.5 | 14 | 14.4 |

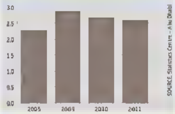
SOURCE: Statistics Centre – Abu Dhabi

**P-12 enrolment in Abu Dhabi**

| | 2000/01 | 2005/06 | 2010/11 |
|---|---|---|---|
| Public | 142,022 | 127,211 | 125,970 |
| Private | 81,988 | 123,690 | 180,527 |
| Citizen | 98,863 | 116,888 | 135,689 |
| Non-citizen | 125,149 | 134,021 | 170,808 |
| Total | 224,010 | 250,901 | 306,497 |

SOURCE: SCAD

**Transport & storage – contribution to GDP (%)**

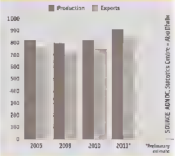



**Manufacturing gross output & value added, 2009-10 (Dh bn)**

| | 2009 | | 2010P | |
|---|---|---|---|---|
| Type of activity | Gross output | Value added | Gross output | Value added |
| Food, beverages & tobacco | 3.66 | 1.34 | 4.08 | 1.49 |
| Textiles, garments & leather goods | 1.55 | 0.86 | 1.66 | 0.92 |
| Wood & wood products | 0.65 | 0.46 | 0.69 | 0.49 |
| Paper, printing, publishing & reprod. media | 0.70 | 0.34 | 0.14 | 0.37 |
| Chemicals, plastics & related materials | 54.04 | 10.05 | 60.64 | 12.52 |
| Non-metallic mineral products (except oil) | 10.81 | 4.28 | 11.28 | 4.49 |
| Manufacture of basic metal | 6.16 | 0.93 | 6.99 | 1.01 |
| Structural metal products (except mach. & equip.) | 9.45 | 5.38 | 10.76 | 6.18 |
| Machinery, equipment & devices | 6.48 | 2.20 | 6.76 | 2.30 |
| Furniture | 0.14 | 0.44 | 0.77 | 0.46 |
| Repair & installation of mach., equip. & other manuf. | 4.09 | 2.91 | 4.27 | 3.04 |
| Total | 98.38 | 29.99 | 108.63 | 33.32 |

SOURCE: Statistics Centre – Abu Dhabi

## Crude prod. & exports, 2005-11 (m barrels)

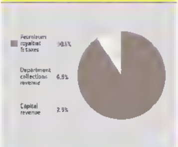



## Distribution of public expenditures (%)

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Current expenditures | 60.8 | 48.5 | 49.1 |
| Salaries & wages | 9.9 | 11.1 | 10.8 |
| Goods & services | 11.2 | 9.6 | 11.4 |
| Current transfers | 39.8 | 27.6 | 26.8 |
| Capital expenditures | 19.2 | 51.5 | 50.9 |
| Development | 10.9 | 9.1 | 9.7 |
| Goods & services | 0.9 | 17.1 | 31.8 |
| Capital transfers | 21.9 | 24.8 | 23.4 |

SOURCE: Statistics Centre – Abu Dhabi

## Distribution of government revenues, 2011




SOURCE: Statistics Centre – Abu Dhabi

## Permits issued by building usage & region, 2010

| Building usage | Abu Dhabi | Al Ain | Al Gharbia |
|---|---|---|---|
| Total | 1268 | 3317 | 861 |
| Residential | 5473 | 2922 | 653 |
| Commercial | 568 | 113 | 15 |
| Industrial | 839 | 196 | 100 |
| Public utilities | 3 | 64 | 34 |
| Agricultural | 80 | 98 | 24 |
| Residential & commercial | 6 | 193 | 0 |
| Temporary | 279 | 0 | 0 |
| Others | 821 | 119 | 1 |

SOURCE: Statistics Centre – Abu Dhabi

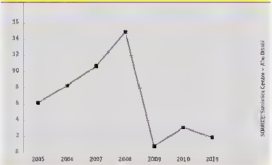
## GDP by economic activity at current prices, 2009-11 (Dh bn)

| Activity | 2009 | 2010* | 2011* |
|---|---|---|---|
| Agriculture, forestry & fishing | 4.70 | 4.60 | 4.84 |
| Mining & quarrying (incl. oil & gas) | 239.01 | 308.02 | 411.18 |
| Manufacturing | 29.99 | 33.32 | 50.90 |
| Electricity, gas, water, waste management | 14.68 | 14.60 | 16.19 |
| Construction | 75.11 | 50.91 | 81.07 |
| Wholesale & retail trade, repair of vehicles | 28.08 | 29.65 | 30.89 |
| Transport & storage | 15.40 | 16.84 | 20.62 |
| Accommodation & food services | 6.28 | 6.51 | 6.80 |
| Information & communication | 29.02 | 22.85 | 22.93 |
| Financial & insurance | 10.15 | 34.50 | 19.20 |
| Real estate | 21.81 | 25.19 | 28.19 |
| Professional, scientific & technical | 17.19 | 18.92 | 18.19 |
| Admin. & support services | 9.70 | 10.37 | 10.80 |
| Public admin. & defence, compulsory social security | 20.56 | 23.23 | 25.39 |
| Education | 7.50 | 8.92 | 9.86 |
| Human health & social work | 3.72 | 4.02 | 4.40 |
| Arts, recreation & other services | 2.07 | 2.21 | 2.32 |
| Activities of households as employers | 1.50 | 1.69 | 1.86 |
| Imputed bank services | -22.58 | -25.99 | -30.43 |
| Total | 535.31 | 620.32 | 806.03 |

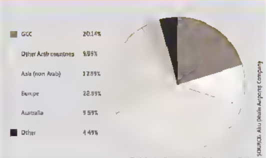
SOURCE: Statistics Centre – Abu Dhabi

*Preliminary estimates

## Inflation, 2005-11 (%)



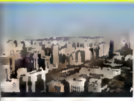

## Air passenger arrivals by region of embarkation, 2011*

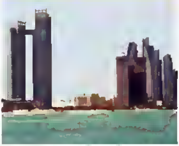



*Excluding transit passengers continuing on same flight

# Profile

Government development plans focus on the long term
Addressing challenges associated with young population
Sovereign wealth funds are drawing world attention
New cultural initiatives and partnerships are under way

Abu Dhabi is a significant economic player regionally and worldwide

# A time of change

## Hydrocarbons revenues and long-term planning support development in a number of key areas

Over the past 40 years Abu Dhabi has grown into a major economic power in the Middle East. A series of ambitious long term development policies have transformed the emirate, turning it into a regional economic, political and cultural heavyweight. As the capital of the UAE, the bustling city of Abu Dhabi (as opposed to the emirate with which it shares its name) has become a significant player in its own right. This rapid rise has been made possible primarily by the emirate's vast oil reserves. Indeed, the hydrocarbons industry comprised 58% of Abu Dhabi's GDP in 2012, according to figures from the Statistics Centre – Abu Dhabi (SCAD), and accounted for over 80% of public revenue the year before. The government has put these substantial economic resources to good use over the years, rolling out an ambitious diversification programme and investing heavily in a wide variety of social welfare initiatives, with a particular focus on health, education and other social services.

**VISION:** Under the Abu Dhabi Economic Vision 2030 strategy, the emirate is working to build a knowledge economy, with a focus on boosting activity in a handful of key non-hydrocarbons sectors, including tourism, manufacturing, logistics, health care, education, financial services and telecommunications. Largely as a result of these initiatives, over the past few decades Abu Dhabi has become a major destination for foreign investment and foreign businesses looking to set up shop in the Middle East. At the same time the government has worked to preserve the emirate's culture, history and traditions, which are considered to be an integral part of daily life (see analysis).

**GEOGRAPHY:** Abu Dhabi, the largest of the seven emirates that make up the UAE, covers around four-fifths of the country's total land area. It shares borders with the emirates of Dubai and Sharjah to the north, Saudi Arabia to the south-west and Oman to the east. The emirate accounts for more than 700 km of the UAE's 819 km Gulf coastline. Only around 30% of Abu Dhabi's land area – which totals around 67,340 sq km – is currently populated, while the remaining 70% is mostly uninhabitable and desert. The emirate is organised into three separate administrative areas: Abu Dhabi City, Al Ain and Al Gharbia, with the latter previously known as the Western Region.

Abu Dhabi City, the capital of UAE and the largest city in the emirate, is situated on an island around 250 metres off the coast, though large parts of the city reach onto the mainland and surrounding islands as well. The island is connected to the mainland and other nearby islands (including Al Reem Island and Saadiyat Island) by a number of bridges.

The inland Al Ain region covers an area of around 13,000 km centred on the city of Al Ain, which is located on the border with Oman, around 160 km east of Abu Dhabi City. The Al Ain region is home to Abu Dhabi's most fertile land and, consequently, a substantial number of agricultural developments. The city of Al Ain is a popular sightseeing destination among Emirati and foreign tourists alike, on account of its unique desert atmosphere. In an effort to boost tourist arrivals, the government has worked to protect the city's cultural heritage (see Al Ain chapter).

Meanwhile, the vast Al Gharbia region accounts for more than 80% of Abu Dhabi's overall landmass but is home to less than 10% of the emirate's total population. The area is covered by expansive tracts of arid land and deserts, and is largely uninhabitable. It is also home to a majority of the country's hydrocarbons reserves, in addition to a number of agricultural areas (see Al Gharbia chapter).

**CLIMATE:** Like most of the Gulf, in the summer months (June through September) Abu Dhabi is hot and humid on the coast and hot and dry further inland. Temperatures in Al Ain – one of the hottest areas in the whole of the country – can reach up to 45-50°C at midday during the summer months, though this figure generally drops substantially at night. Temperatures are typically cooler from October through May, though the emirate usually has blue skies and sun year round.


Estimates from SCAD put the emirate's population in mid-2011 at 2.12m, up from 1.69m in 2008

**GOVERNMENT:** The UAE government in Abu Dhabi City, the federal seat, oversees a variety of key responsibilities for the country as a whole, including national security and foreign affairs, among others. The president of the UAE is customarily the ruler of Abu Dhabi, while the ruler of Dubai serves as the country's prime minister and vice president.

The current president is Sheikh Khalifa bin Zayed Al Nahyan, who took over the position in 2004 when his father, Sheikh Zayed bin Sultan Al Nahyan, the founder of the UAE, passed away. The current prime minister and vice-president of the UAE is Sheikh Mohammed bin Rashid Al Maktoum, who has held the position since 2006. He is also the ruler of Dubai.

The Supreme Council of Rulers, which is made up of the hereditary rulers of each of the seven emirates, is the primary national policymaking body in the UAE. Other major federal bodies include the Council of Ministers, or the cabinet; the Federal National Council, a partially elected 40-member organisation that serves in an advisory capacity to the Supreme Council; and the federal judiciary.

Outside of the areas listed above, each of the seven emirates maintains a substantial amount of economic and political autonomy. Abu Dhabi, which boasts the great majority of the UAE's hydrocarbons reserves, has used this autonomy to invest heavily in a series of economic diversification programmes, in addition to social and cultural development initiatives.

**DEMOGRAPHICS:** Estimates from SCAD put the emirate's total population at 2.12m in mid-2011, up from around 1.97m in mid-2010, 1.83m in 2009 and 1.69m in 2008. The majority lives in Abu Dhabi City, which had a population of 1.3m in mid-2011, while the Al Ain region had 584,800 residents and Al Gharbia was home to 225,700 people. As of mid-2011 Emiratis made up around 20.7% of the population, with expatriates (primarily foreign workers) accounting for the remaining 79.3%, according to SCAD figures. The number of foreign labourers residing in Abu Dhabi has skewed the emirate's gender mix in recent years. As of mid-2011 men accounted for around 71% of the population, while women made up the remaining 29%.

Like most other countries in the Middle East, in recent years the UAE's youth population has grown substantially. As of mid-2011, according to SCAD, more than 50% of Abu Dhabi's total population was below the age of 29, while more than 78% was below 40 and a full 92% was below the age of 50.

**LANGUAGE:** While Arabic is the official language of the UAE, a wide variety of other languages are also spoken in the country, including English, Urdu, Hindi, Chinese and various European languages. English is in wide use at all levels of business and government.

**RELIGION:** Islam, the official religion of the UAE, has a far-reaching impact on daily life, business and social interactions in Abu Dhabi. The country's legal system, for example, is based on a combination of sharia precepts and guidelines along with international legal standards. Islam informs other areas of life as well, including public behaviour, the calendar, marriage relations and cultural pursuits such as music, art and literature. The Sunni tradition is the dominant form of Islam in the UAE and is practised by most Emiratis. However, Abu Dhabi City's cosmopolitan population includes adherents to a wide variety of other religions as well, such as Christianity and Hinduism, among others. Indeed, the constitution of the UAE, which has been in effect since the country's founding in 1971, guarantees freedom of religion in accordance with established traditions and customs.

**ECONOMY & EMPLOYMENT:** The thriving local hydrocarbons industry plays a central role in Abu Dhabi's economy. As of the end of 2011 the UAE was home to nearly 6% of the world's proven oil reserves, according to BP's 2012 "Statistical Review of World Energy", and of these Abu Dhabi holds around 95%.

Other important contributors to economic growth include construction, real estate, financial services and, increasingly, tourism. Abu Dhabi accounts for around 60% of the UAE's economy.

According to preliminary figures from SCAD, the emirate's GDP jumped by nearly 30% in nominal terms over the course of 2011, topping out at Dh806bn ($219.39bn) at the end of the year. This expansion was due primarily to rising oil prices and increased hydrocarbons production. In 2011, according to SCAD, oil and gas contributed around 58.5% of Abu Dhabi's GDP. Under Economic Vision 2030, the emirate's long-term development plan, it is working to bring this number down to 36% by 2030.

As of mid-2011, the most recent year for which SCAD has released statistics, Emiratis made up just over 9% of the national workforce, and of those working around 60% are employed in public sector positions, including a substantial number in defence and public administration. An estimated 11.8% of nationals were unemployed as of mid-2011, according to SCAD. In an effort to reduce unemployment among nationals, the government has invested heavily in training and education in recent years (see Economy chapter).

The emirate has a rich history dating back thousands of years

# Eye on the long term

## Development plans move forward at home, while trade helps to forge links with leading economies abroad

With a substantial percentage of the world's oil reserves and a reputation for careful economic and political oversight, Abu Dhabi has become a major regional player in recent years. In 2011 and 2012, despite ongoing political instability in the Middle East and concerns about long-term financial volatility in many Western markets, the emirate's status continued to grow. This is largely the result of a series of ambitious development initiatives put in place since 1958, when oil was first discovered in Abu Dhabi. Indeed, the booming hydrocarbons industry continues to be the emirate's primary economic contributor, accounting for 90.6% of government revenues in 2011, according to figures from the Statistics Centre – Abu Dhabi (SCAD).

In an effort to put this income to good use and reduce the emirate's reliance on hydrocarbons, the government has invested heavily in a number of economic diversification strategies. Most recently, under the Abu Dhabi Economic Vision 2030 initiative, the emirate aims to reduce the oil and gas sector's contribution to GDP to 36% by 2030, from 58.5% in 2011, according to figures released by SCAD. Other related long-term goals include building a fully fledged knowledge economy and providing high quality, comprehensive social services for the growing population.

Still, the emirate faces a number of ongoing challenges. Abu Dhabi's population is heavily skewed towards younger generations. According to figures from SCAD, more than 50% of the population is under the age of 29. Ensuring this population has access to housing, jobs, education, health care and other social services is a daunting challenge. The political unrest that swept the Middle East and North Africa in 2011 and 2012 has only exacerbated this issue, even if it has not directly affected the emirate. Meeting the diversification targets laid out in Economic Vision 2030 represents another major challenge going forward.

Despite these issues, the emirate's future looks bright. While ongoing political unrest continues to be a major challenge for many Middle Eastern governments, that is not the case for the UAE. The country has also been the recipient of additional economic activity as businesses and investors from around the broader Middle East seek out politically stable Arab markets, such as the UAE, Saudi Arabia and Qatar.

**HISTORY:** Modern-day Abu Dhabi and the surrounding area has been a centre for trade and other economic activity for thousands of years. The earliest recorded archaeological evidence discovered in the area dates back to the third millennium BCE.

The Umm An Nar civilisation, for example, was active from roughly 2600 BCE through 2000 BCE in an area that now includes parts of the UAE as well as northern Oman. Named after a small island to the south-east of what is now Abu Dhabi City, the inhabitants of the region at the time were largely traders and fishermen. Archaeologists have also uncovered evidence of an ancient civilisation inland, near the modern city of Al Ain and Jebel Hafeet, the UAE's second-highest mountain, on the Omani border.

The history of modern-day Abu Dhabi can be traced to the Bani Yas, a nomadic Arab tribe that consolidated power in the region beginning in the late 18th century. In 1793 a section of the tribe migrated from the southern Arabian Desert to today's Abu Dhabi Island. The Al Nahyan family, which now rules Abu Dhabi, traces its lineage back to this group. Similarly, the Al Maktoum family, which rules Dubai, was also part of the Bani Yas tribe. Primary economic activities during this period included camel herding, date farming and other agricultural pursuits, fishing and pearl diving.

In the early 19th century the British took control of the area, with the overarching goal of protecting their lucrative trade route to India. In the mid-1800s Abu Dhabi, along with the six other emirates (then known as sheikhdoms) and parts of Oman, signed a maritime treaty with the British empire, in effect ceding control to the British in exchange for protection from the Ottoman empire. As a member of the Trucial States, Abu Dhabi was a British protectorate until the 1960s.

Under the government's Economic Vision 2030 initiative, the emirate is hoping to reduce the oil and gas sector's contribution to GDP to 36% by 2030

The history of the modern-day emirate began in the late 18th century when the Bani Yas, a nomadic tribe and ancestors of the current ruling family, first migrated to today's Abu Dhabi island.

The ruler of Abu Dhabi also serves as the president of the UAE's federal government, which is guided by the Council of Rulers, a body composed of the rulers of each of the emirates

In 1968 the UK announced that it would pull out of the Gulf entirely by 1971. Over the next three years Sheikh Zayed bin Sultan Al Nahyan, the leader of the sheikhdom of Abu Dhabi, brought the other emirates together to form the UAE, which became an independent state in early December 1971. The seventh and final emirate, Ras Al Khaimah (RAK), joined shortly thereafter in February 1972. Sheikh Zayed, who became the president of the new country, began the long process of developing and modernising Abu Dhabi and the greater UAE. He is widely credited with transforming Abu Dhabi into a vibrant, modern economic centre. When Sheikh Zayed passed away in 2004, his son, Sheikh Khalifa bin Zayed Al Nahyan, took over where he left off.

**THE FEDERAL GOVERNMENT:** As the federal seat of the UAE, Abu Dhabi City is home to the country's national government. Under the constitution of the UAE, which was written jointly by the leaders of Abu Dhabi and Dubai in 1971, each of the seven emirates that make up the UAE – namely Abu Dhabi, Dubai, Sharjah, RAK, Ajman, Fujairah and Umm Al Qwain – retains a considerable amount of autonomy. The federal government, meanwhile, manages key sectors that require national-level direction, such as currency issues and fiscal policy, national security and defence, foreign affairs, immigration, labour relations, communications policy and education regulation and standards, among others. There is interplay between federal and local oversight organisations in some areas. For example, while an individual emirate might develop a new university or hospital, that facility will be required to meet national quality standards, as well as local benchmarks.

As the original founding members of the UAE, Abu Dhabi and Dubai play a central role at the national level. For instance, due to Sheikh Zayed's leadership in establishing the UAE in the 1970s, the ruler of Abu Dhabi traditionally also serves as president of the country. Similarly, the ruler of Dubai – currently Sheikh Mohammed bin Rashid Al Maktoum, who has held the position since 2006 – traditionally serves as prime minister and vice president. At the national level Abu Dhabi is represented by Sheikh Khalifa, who sits on the Supreme Council of Rulers, the central presiding body in the UAE, alongside the rulers of the other six emirates.

**ORGANISATION:** The government of the UAE has three branches, namely the executive branch, the legislative branch and the judicial branch. The executive branch is made up of the Supreme Council and the Council of Ministers, otherwise known as the cabinet. The latter entity comprises the UAE's 22 government ministers and is overseen by the prime minister and two deputy prime ministers. The legislative branch is primarily composed of the Federal National Council (FNC), a 40-member body comprising representatives from all seven emirates. Since 2006 an electoral college – a group of prominent citizens appointed by the Supreme Council – has elected half of the members of the FNC, while the other half is appointed by the Supreme Council. The number of FNC representatives from each emirate is determined by size and population. Abu Dhabi and Dubai, as the most populous and largest emirates, each send eight representatives (four nominated by the ruler and four elected), while Sharjah and RAK send six, and the other three emirates each send four.

Recent changes at the FNC are at the heart of the Supreme Council's latest efforts to boost public participation in government. Until the mid-2000s, all FNC representatives were appointed directly by the ruler of each individual emirate. In 2006 the UAE held its first public elections, with an electoral college of around 6000 Emiratis electing 20 members of the FNC. In September 2011 the second round of elections took place, this time with an expanded electoral college of more than 129,000 individuals – 46% of which were female, a sizeable jump on the 2006 elections, when women were around 18% of the voting body. Similarly, 85 women campaigned for a spot in the FNC in 2011, of 468 candidates in total; at time of print, eight women were serving in the FNC. The elections have simultaneously boosted participation in the political process in the UAE and established a culture of electoral politics for the first time in the country's history.

The FNC plays an advisory role in the federal government, offering assistance and counsel to Supreme Council members and other decision makers. The government has worked to expand the council's powers in recent years. In 2008 the Supreme Council introduced a handful of constitutional amendments that extended FNC members' terms from two years to four years, and increased its remit to include the UAE's involvement and participation in international agreements and conventions, among other changes. As the Supreme Council continues to work to expand representative government in coming years, more changes are expected.

Finally, the federal judicial branch, which is independent of the other branches of government under constitutional law, is made up of the Federal Supreme Court and the Courts of First Instance. The former, which is composed of five judges, deals with federal laws and disputes, including inter-emirate issues. The latter comprise a network of regional courts and deals with matters such as local issues, laws and disputes.

**THE LOCAL GOVERNMENT:** Under the constitution, each emirate is allowed a substantial amount of autonomy. For example, the emirates are allowed to acquire individual membership in OPEC, although none of them have opted to do so, instead allowing the federal government to manage the country's participation in the organisation. When the UAE was founded in 1971, many of the smaller emirates ceded authority over certain areas to the federal government. Since then, however, income growth and higher levels of education throughout the UAE have allowed some of the Northern Emirates to exercise part of this authority on their own. RAK, for example, has successfully introduced a series of ambitious local economic development projects in recent years, and enjoys a steadily growing reputation as a regional destination for investment.

While some of the smaller emirates continue to rely heavily on the federal government for support and services, Abu Dhabi, the wealthiest, largest and most populous emirate, boasts a suite of local government

Individual emirates in the UAE retain a substantial amount of autonomy, though they are expected to adhere to a number of federally mandated standards.

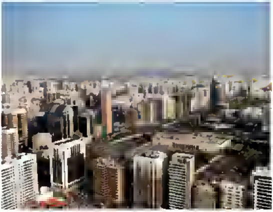
entities of its own. The Executive Council, which is the primary governing body at the emirate level is chaired by Sheikh Mohammed bin Zayed Al Nahyan, Sheikh Khalifa's brother, who serves as the crown prince of Abu Dhabi and deputy supreme commander of the UAE's armed forces. The Executive Council is made up of the heads of key government departments and authorities as well as other members appointed by the ruler and it serves as the local executive authority of the emirate. A number of subcommittees operate under the Executive Council, including ones dedicated to economic development, social development, and infrastructure and environment. Not all members of these subcommittees are members of the Executive Council. The council holds weekly meetings and closely monitors ongoing local development projects.

The National Consultative Council (NCC), meanwhile, carries out a number of other government functions at the local level including reviewing legislation and managing Abu Dhabi's international treaties and trade agreements. The council is made up of 60 members, who are appointed by the ruler. Like the FNC at the federal level, the NCC is expected to continue to gain new powers in the coming years, as the government works to boost participation in public affairs. Finally, individual municipal authorities, made up of leaders from the respective areas, administer the regions of Abu Dhabi City, Al Ain and Al Gharbia.

**ECONOMIC DEVELOPMENT STRATEGY:** In 2008, after a two-year review process, the emirate's government launched the Economic Vision 2030 planning document, which serves as a blueprint for Abu Dhabi's long term economic development. The plan was put together by a task force of players from both the public and private sectors, and picks up where a handful of previous development programmes left off. Three public entities took the lead in the development process: the Department of Planning and Economy, the Abu Dhabi Council for Economic Development and the General Secretariat of the Executive Council.

Broadly, Economic Vision 2030 aims to diversify the emirate's economy away from oil income; develop its social and human resources, improve and expand upon the emirate's infrastructure and transport networks; improve environmental sustainability standards; and optimise government operations.

To meet these targets, the government has identified seven priority development areas: building an effective business environment that is globally integrated; developing a disciplined fiscal policy framework capable of responding to economic cycles; instituting a robust financial and monetary market environment and managing inflation; improving labour market efficiency, developing a resilient national infrastructure with the capacity to handle future economic growth; developing a productive, skilled national workforce; and supporting financial markets to boost private sector financing of development projects. The implementation of Economic Vision 2030 is expected to create numerous opportunities for local and international investors in many sectors. The programme is anticipated to yield a large number of new jobs for Emiratis, principally in knowledge-based, export-oriented sectors.


The emirates future economic development has been planned out under Economic Vision 2030

Diversifying Abu Dhabi's economy, which remains reliant on hydrocarbons-related income, is a primary area of focus. By 2030, as stated above, the government is working to reduce the hydrocarbons sector's GDP contribution to 36%. With this in mind, the Economic Vision 2030 document includes a list of non-oil sectors that will benefit from investments made under the programme and are expected to become major GDP contributors. On the regional level, Abu Dhabi aims to become a centre for trade, transport and logistics. Other areas of focus include education, media, financial services, telecoms, chemicals, metals and mining, aviation and defence, hotels and restaurants, pharmaceuticals and biotechnology, and health care equipment. Alongside these new focus areas, the government has continued to work to develop the thriving energy sector, which still has great potential.

Abu Dhabi has already made substantial progress in many of the areas described in the plan since its launch in 2008. As of mid-2012, a number of major infrastructure projects were either in the planning stages or under construction including a new terminal at Abu Dhabi International Airport, 24 schools, 14 health centres, numerous road projects, a light-rail project and the massive Kizad initiative. Kizad, which includes a free zone and new port and shipping facilities, is expected to contribute 15% of the emirate's non-oil GDP by 2030.

**SOCIAL DEVELOPMENT:** The social development component of Economic Vision 2030 has become increasingly important in recent years. While public protests have broken out in numerous countries throughout the Middle East, Abu Dhabi has remained stable, with the UAE's solid financial position and a series of government investments in housing and other key areas contributing to this. Indeed, according to a February 2012 report in US business magazine *Forbes*, the UAE boasted the sixth-highest per capita income in the world – behind Qatar and Singapore, among others.

Progress on the government's development strategy is well underway, with a number of major infrastructure projects laid out in 2008 either in the planning stages or already under construction.

Additionally, the government offers a comprehensive set of social services and other public amenities for residents, including free education, health care and, in many cases, housing. Various government entities are currently in the midst of a handful of major new residential construction projects. In late August 2012, for example, the Abu Dhabi City government granted 1000 residential units to low-income Emiratis as part of the Al Farah City Residential Project, which includes 4857 villas spread over about 12.5m sq metres east of Abu Dhabi International Airport.

Like Saudi Arabia and Qatar – also major oil- and gas-producing nations with relatively high per capita GDPs – the UAE has actually benefitted from the Arab Spring in a variety of ways. Many investors from countries that have been affected by the unrest, such as Egypt and Libya, have moved their investments to more stable economies, including the UAE, according to OBG interviews with financial industry players.

The tourism industry has also benefitted, as visitors – particularly those from other countries in the Middle East – have sought out safe, accessible destinations. In 2012 both Abu Dhabi and Dubai were popular destinations during the Islamic month of Ramadan, for example, when many Muslims in the Gulf take time off from work to travel abroad.

Strengthening the government's commitment to social development is a key component of Economic Vision 2030. Improving the quality of education in Abu Dhabi has been a central government focus for decades. According to a recent SCAD study, the emirate currently boasts one of the lowest illiteracy rates in the Arab world. Only 7% of Abu Dhabi's population was illiterate in 2011. This compares to an average illiteracy rate of about 35% for the Arab world as a whole in the same year, according to figures from the Arab League Educational, Cultural and Scientific Organisation.

**AN ENVIRONMENTAL FOCUS:** In addition to the economic and social targets laid out in Economic Vision 2030, the plan includes goals designed to ensure the emirate continues to improve upon its environmental sustainability practices. Abu Dhabi has earned a reputation as an international centre for green building and cutting-edge sustainable development, largely due to the massive Masdar City project, a 6 sq km city that will rely entirely on renewable energy sources, giving it a carbon-neutral footprint. Masdar City, which is set to be completed between 2020 and 2025 at a cost of around $19bn, is expected to eventually house some 40,000 people. While the project was launched in 2006 well before Economic Vision 2030 was introduced, it encapsulates the commitment to green innovation. Masdar City is just one part of the broader Masdar initiative, which also encompassed a university (the Masdar Institute of Science and Technology), renewable energy funds and the development of new energy technologies, among other things (see Energy chapter).

Environmental protection remains a priority due to continuing construction and the emirate is earning a reputation as an international centre for green building practices.

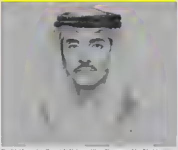
Another key part of the government's focus on environmental issues is the UAE's recent move towards nuclear power. In 2008 the government published a policy for the evaluation and potential development of peaceful nuclear power. Plans were subsequently announced to install a network of nuclear power plants to meet rising energy demand and reduce reliance on hydrocarbons. In general, nuclear power is considered to be a substantially cleaner energy source than oil and other fossil fuels. As of mid-July 2012, construction was under way on the first of four civil nuclear power plants, which will be located in Abu Dhabi near the border with Saudi Arabia. Developed in cooperation with the International Atomic Energy Agency, the first plant is expected to begin producing energy in 2017.

**FUNDING FUTURE STABILITY:** Abu Dhabi's government oversees two sovereign wealth funds (SWF) and numerous government capital investment vehicles, which together represent one of the largest pools of government investment in the world. The Abu Dhabi Investment Authority (ADIA), the emirate's largest SWF, was founded in 1976 for the purpose of investing on behalf of the emirate. Though ADIA has never released the actual value of its assets, estimates range around $500bn. According to the SWF Institute, a US-based organisation that studies government investment strategies, the fund was valued at around $627bn in early 2012, which would make it the world's single largest public investment portfolio. Abu Dhabi's other SWF is the Abu Dhabi Investment Council, while its government capital investment vehicles include the International Petroleum Investment Company and Mubadala Development Company. These are invested in numerous sectors around the world, and have played a major role in the emirate's rapid expansion over the past four decades.

**FOREIGN RELATIONS & TRADE:** Abu Dhabi's growing international reputation is closely related to its rapidly expanding profile as a key trade partner of many of the world's largest economies, with much of this trade centred on the sale of oil and related products. According to the most recent statistics available from SCAD, hydrocarbons and related products accounted for 94% of total exports in 2011.

Major importers of Emirati crude include Japan, which purchased 35.6% of the total oil exports from Abu Dhabi in 2011 as well as South Korea, Thailand and India. The Netherlands, meanwhile, imported almost 17% of refined oil products in 2011. Japan also purchases a substantial amount of refined oil products, in addition to the majority of its natural gas exports.

While oil exports continue to grow, Abu Dhabi has also posted rapidly expanding non-oil exports in recent years, in line with the economic diversification plans laid out in Economic Vision 2030. In 2011, according to SCAD, the top purchasers of non-oil products from Abu Dhabi were Canada, with some 23.1% of the total, Saudi Arabia with 17.9%, and Brazil, with about 14.5%. The three largest non-oil export categories in 2011 were transport vehicles, which made up almost 40% of total non-oil exports; base metals and articles of base metals, with 22% of the total; and rubber and plastic products with 21.2% (see Economy chapter). After playing a major role in raising its profile in the past, Abu Dhabi's trade activities are expected to be central to the emirate's relationships abroad in the years ahead.



Sheikh Hazza bin Zayed Al Nahyan, Vice-Chairman, Abu Dhabi Executive Council

# Planning for growth

## OBG talks to Sheikh Hazza bin Zayed Al Nahyan, National Security Advisor and Vice-Chairman of the Abu Dhabi Executive Council

**How has economic policy been changed as a result of the global financial crisis? Have the targets of Economic Vision 2030 been revised?**

**SHEIKH HAZZA:** Since 2008 the global economy has been under severe pressure, and this has been compounded by unsettled geopolitical events across the Middle East. The banking crisis has evolved into a sovereign debt crisis which caused widespread damage to the global financial system.

Political actors and government leaders across the world are now facing serious challenges. It was within this context that the Abu Dhabi Government decided to carry out an extensive review of its capital projects, with the aim of optimising our resources while effectively addressing the strategic issues that emerged as a result of changes in the global economy. In this regard, our re-prioritisation of projects was a success. Our long-term strategy, as articulated in the Abu Dhabi Vision 2030, remains unchanged, yet it was clear that our short-term priorities needed to be altered to accommodate the changing realities on the ground. Our economic priorities are therefore targeted towards building a long-term sustainable economy. This is to be done through ensuring a balanced social and regional economic development approach that brings benefits to Emirati citizens and residents of the UAE in general.

Such an approach reflects the vision of HH Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates, and the follow-up of HH General Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, while focusing on economic diversification and non-oil-dependent economic growth.

To implement this strategy more effectively, we are now in the final stages of developing our second five-year plan for the emirate, in which we will be dealing with short-term priorities and pursuing the long-term policy agenda linked to Economic Vision 2030. The initial plan was the 2008-2012 five-year economic development strategy plan.

**In what ways will the development projects announced in January 2012 help boost the overall infrastructure and industrialisation process?**

**SHEIKH HAZZA:** The overall infrastructure and industrialisation process is driven by our economic diversification strategy. This is currently evolving in eight different areas: cultural tourism, aviation, manufacturing, media, health care, petrochemicals, financial services and renewable energy.

These priorities are reflected in the list of projects announced by the Executive Council in January 2012. For example, the Abu Dhabi Louvre and the Abu Dhabi Guggenheim museums projects on Saadiyat Island will form the cornerstone of our strategy of diversifying cultural tourism. We have started the process of capacity building in the high-tech aviation industry through Mubadala's investment in STRATA.

Moreover, we have invested heavily in the aluminium, steel, copper and petrochemicals sectors through Abu Dhabi's General Holding Corporation – the UAE's largest industrial conglomerate and a key player in implementing the Abu Dhabi government's industrial diversification policy. We are actively reviewing our investment in the media sector to ensure that it generates a contribution to our GDP.

The decision to set up a branch of the well-known Cleveland Clinic, which will provide competitive medical services, was also announced in January. Our decision to diversify into renewable energy has achieved desirable results through the

work being carried out at Masdar City and the Masdar Institute of Science and Technology. Lastly, the solar power plant "Shams" announced in January is our first local renewable energy project to be implemented.

**How can the government ensure that its spending programme will benefit, rather than compete with, investments from the private sector?**

**SHEIKH HAZZA:** Financial and monetary policies are the government's task, such policies are used to limit economic fluctuation and boost sustainable economic growth. However, the private sector is a strategic partner that effectively supports the public sector and contributes to the implementation of the government's economic plans.

Electricity, maritime transportation and aviation, among others, are vital areas in which the private sector is actively involved. To fulfil the economic strategy, the government has set strict standards to ensure that the investment programme benefits rather than contends with the private sector.

The Department of Economic Development, for instance, has been charged with empowering the private sector and establishing a business environment that favours private sector involvement. Initiatives include the streamlining of the business registration process, support for small and medium-sized enterprises (SMEs) and the privatisation of certain government services.

The government has recently established the Office of State-Owned Enterprises, which has as one of its priorities the establishment of appropriate governance structures to ensure that state-owned enterprises do not enjoy an unfair advantage over the private sector. State-owned enterprises have been encouraged to collaborate with the private sector and, wherever possible, to include the private sector in new investment opportunities in which business risks and benefits are shared.

For example, Abu Dhabi Basic Industries Corporation, which is a subsidiary of General Holding Corporation, works in partnership with various leading industrial establishments with high levels of expertise, and contributes in providing resources such as capital, land and raw materials.

SMEs are the bedrock of any sustainable economy. For a variety of reasons and because of the nature of these enterprises, the Khalifa Fund for Enterprise Development was set up to provide an integrated system of support services for entrepreneurs. These include training, development, data and consulting services, in addition to a number of marketing-focused initiatives.

**To what extent has the privatisation of some government services helped to increase competencies, and has it allowed the government to focus on other key areas?**

**SHEIKH HAZZA:** Following the overall development and diversification of the economy, the government is privatising some services. The aim is to focus on key and strategic sectors or involve the know-how owners in other sectors.

Notably, electricity and water supply was outsourced to the Abu Dhabi Water & Electricity Authority, municipal services such as street cleaning and garbage collection were privatised, and so were catering and aircraft maintenance in the aviation sector, as well as much of the infrastructure construction. In the health and education sectors, the government has entered into partnerships with the aim of improving the operation and governance of service provision.

Our ultimate goal is to set up a sustainable free-market economy in which all entities, both pub-

lic and private, compete on an equal footing, and the government is able to concentrate on issues of policy development and managing the emirate's affairs.

**What steps are being taken to increase labour productivity in Abu Dhabi in line with the objectives outlined in Economic Vision 2030?**

**SHEIKH HAZZA:** One of the areas that needs particular focus if we are to achieve our economic vision is the development of a highly skilled and productive labour force capable of adding significant value within a knowledge-based economy.

Labour productivity is closely linked both to education and investment in research and development. By international standards, higher productivity is usually connected with higher levels of technological input in the process of generating economic value.

To address this issue we have established the Technology Development Committee, which is charged with the creation of a science, technology and innovation policy that can be implemented as part of Abu Dhabi's five-year plan.

The political recommendations in this regard focus on five main areas: raising the standards of education in science, technology, engineering and mathematics, and promoting research and development by growing government investment in research and development.

To this end the government has launched a number of initiatives, such as the Technology Innovation Centre. Such initiatives aim to streamline new product development and boost the SMEs working in the fields of science and technology.

The ultimate goals are to form a vibrant local technology enterprise base, provide specialised infrastructure to promote a symbiotic cluster effect with other industries, and introduce new laws and regulations that are specifically tailored to supporting a knowledge economy.

We have already taken steps to begin this process. For example, Mubadala has made strategic investments in advanced technology in the aviation and the microchip manufacturing industries, and students have already been sent for training to these companies. The Masdar Institute of Science and Technology has recently offered postgraduate degrees on a part-time basis to allow employed people to enhance their technical qualifications. Similarly, branches of internationally distinguished universities, such as the Sorbonne and New York University, have established campuses in Abu Dhabi offering postgraduate courses to local students.

In terms of improving productivity in the public sector, Abu Dhabi's Centre for Excellence undertakes turning out highly skilled staff with the best international training standards.

**How will the government's economic and social initiatives in the Abu Dhabi Western Region (Al Gharbia) and Al Ain help ensure balanced development throughout the emirate?**

**SHEIKH HAZZA:** I stated at the beginning of our interview that our economic priority is building a long-term sustainable economy by ensuring a balanced social and regional economic development approach that brings benefit to all.

In 2012 we have stepped up our regional social and economic investment programme by means of new housing, community and health care facilities, major urban infrastructure projects, along with the establishment of two new industrial cities in Al Ruwais and Zayed City in Al Gharbia. This has helped to create jobs for the residents in these areas, while upgrading their standard of living with high-quality housing and social services.

Many businesses are now implementing environmental policies as well

# Government gone green

## The emirate's environmental policies have had a positive impact

At a panel discussion on the occasion of World Environment Day (WED) in June 2012, Richard Perry, the executive director of environmental information, science and outreach at the Environment Agency – Abu Dhabi (EAD), spoke of the emirate's ambitious environmental development plans. "Due to the demands of an ever increasing population, resource availability is diminishing," he said. "We need to become more careful in our use of resources. But do we have sufficient time to make these changes?"

Protecting and conserving the natural environment in the coming years will require sustained commitment at government level as well as among the general population. Abu Dhabi's reputation as a regional leader in sustainable best practices and green development bodes well in this regard. Indeed, its numerous ongoing environmental programmes have had a positive impact in several areas in recent years. While many challenges remain, Perry and other speakers at the 2012 WED discussion expressed cautious optimism about Abu Dhabi's environmental policy going forward.

**STRATEGIC UNDERPINNINGS:** The government-operated EAD, created in 1996, has a mandate to develop and implement the emirate's environmental policy, which includes protecting the natural habitat and promoting sustainable development practices. For the past five years most of the agency's activities have fallen under the rubric of the Environment Vision 2030 strategy. The EAD has taken a two-pronged approach under the plan – on the one hand the agency has worked to carry out practical projects that have an impact on day-to-day life in the emirate, while on the other it has introduced long-term goals that run through to 2030. Provided everything goes according to plan, over the next two decades these two areas will increasingly line up.

Major environmental projects that are currently either under way or in the initial planning stages as part of Environment Vision 2030 include initiatives to reduce air and noise pollution, preserve biodiversity, conserve water resources and minimise the long term impact of climate change, among others.

While these programmes are moving forward, environmental development in Abu Dhabi is still very much in the early stages. The UAE, like most countries in the Gulf, is water-poor, and is working to prepare for a series of water shortages in the coming decades. Similarly, low electricity costs have resulted in the UAE being ranked as one of the world's top consumers of electricity. In particular, energy consumption jumps substantially during the hot summer months, when many buildings in the country run air-conditioning units on a full-time basis.

Over the past five years the UAE has consistently had one of the world's largest environmental footprints on a per capita basis, according to the World Wide Fund for Nature, which draws up annual rankings based on resource consumption and the amount of land required to produce the goods – food, building materials and others – a country consumes.

**REAL PROGRESS:** In late 2011 the EAD released the results of an initial year-long study of around 2000 residents from a variety of national backgrounds, locations and age groups. By the end of 2010, 59% of those surveyed considered themselves environmentally aware, up from 49% at end-2008. The percentage of people who believe that individuals are partly responsible for protecting the environment jumped from 35% to 76% over the same period.

By the end of 2010 66% of survey participants thought that the government's participation in protecting the environment was necessary, up from 54% in 2008. A substantial number of businesses have implemented environmental policies in recent years. By the end of 2010 some 90% of businesses surveyed turned off their computers at the end of the day to conserve energy, up from just 59% in 2008, and 63% of businesses had implemented some type of paper-saving initiative, up from around 18% previously.

Low costs have resulted in the UAE being ranked as one of the world's top electricity consumers. Energy consumption jumps during the summer months, when many buildings run air conditioners full time.


Building Excellence
Al Fattan Ship Industry was founded in 2009 at Al Sader Port, the heart of the shipping lines heading to and from the east and west to the UAE. The company operates within an area of 50,000 square meters to manufacture ships, yachts, barges and oil platforms as well as repair and maintenance services.
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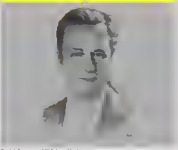


David Cameron, UK Prime Minister

# Strengthening a long friendship

## David Cameron, UK Prime Minister, on trade links with the GCC

This year, Britain welcomed the world. We've had the extraordinary success of the Olympics and the pageant and tradition of the Diamond Jubilee. From heads of state and business leaders to athletes and spectators, Britain has been showing everyone what we can do best.

As prime minister, I am determined to make sure this spirit becomes something that really lasts. I want Britain to strengthen its links with old friends around the world, and build them with new ones as well.

That's why the government I lead is putting so much effort into our vital relationships with the Gulf states. We have long been good friends and close trading partners. Our deep strategic partnership is well established, through shared ties of history and commerce.

But I know full well that it is not good enough just to look backwards. We have got to redouble our commitment to a relationship that serves us all so well. This government has made this a priority. In 2010 I launched the Gulf Initiative as a clear commitment to elevate UK-Gulf relations and reflect the importance the UK attaches to partnerships with these countries.

The Gulf Initiative is clearly delivering results and our Gulf partners have welcomed our renewed engagement. In less than two years, there have been over 100 high-level visits – to every country and on every issue, from foreign policy to education and health. The first state visit of Her Majesty the Queen to Oman and the UAE in over 30 years set the standard.

Strengthening our relationship further means doing two things in particular. First, I want to encourage businesses from the Gulf to invest and succeed in Britain. I want people to discover how we are changing what we have to offer and how – in challenging times for much of the world economy – we can make sure every one benefits. I'm committed to making Britain one of the best places to do business on the planet. It offers direct access to the European single market, the lowest corporation tax of any G8 country and a committed, skilled workforce. That's why London is not just one of the most dynamic cities anywhere, but a global hub welcoming investment from the Gulf. There is no greater testament to that spirit of endeavour than the stunning Shard building in London, Europe's tallest building, backed by investment from Qatar. Recent Gulf investment is a clear sign of the confidence of Gulf partners. The UAE is a major investor in the UK; DP World's investment in the London Gateway is the largest foreign infrastructure investment in the UK.

But there is more we can do. This government will continue to work with the sovereign wealth funds of the Gulf and UK financial institutions to attract investment for approximately £250bn worth of opportunities under the UK's National Infrastructure Plan.

Second, I want to see British businesses using their skills to win new contracts across the Gulf region. We have so much to offer – from outstanding aerospace firms such as Rolls Royce to life science companies and medical specialists and, of course, a world-leading finance and business services sector.

The Gulf is one of our key economic partners. In 2011 alone, the UK exported more goods and services to the Gulf than to India, Russia and Mexico combined and bilateral trade has increased by 39% over the last two years to £29.8bn. We want to build on this progress further. Strengthening our relationships with governments in the region and doing all we can to support and promote British business overseas. For example, Minister of State for Trade and Investment Stephen Green leads the Middle East Task Force, the sole purpose of which is to give strategic direction to the government's efforts to win business in the region.

The Gulf is an exciting place for British business. The region is weathering the international economic storm, and is embarking on ambitious development plans. All of which provide opportunities beyond the established oil and gas sectors – including infrastructure, transport, education, science and innovation.

Our long friendship has withstood the test of time. Now more than ever, I am confident that as our partnership develops we will go from strength to strength.

# Preserving Our Values

## Vision:

The GAIAE is UAE's leading institution promoting social awareness and progress according to the tolerant teachings of Islam that recognise the current realities and understand the future challenges.

## Mission:

The GAIAE works on enhancing religious awareness by building and maintaining mosques and memorisation centres, managing Haj and Umra affairs and investing in Waqf (endowment) for the good of society.

## Strategy:

- The strategic goals of the General Authority for Islamic Affairs and Endowments (GAIAE) are:
- Contribute to the dissemination of religious awareness and Islamic culture. Instill the values of moderation and tolerance in society.
- Highlight the civilised image of mosques, activate its role and develop its personnel.
- Develop the Official Ifta' (Islamic ruling) Center and enhance its societal value.
- Promote awareness of the Islamic concept of awqaf (religious endowments). Develop and diversify awqaf investments.
- Improve Haj (pilgrimage to Makkah) and Umrah (lesser pilgrimage to Makkah) services.
- Develop GAIAE human resources and optimise revenues investments to improve services and achieve excellence.

**General Authority for Islamic Affairs and Endowments**
Address: PO Box 2272 Abu Dhabi, UAE
Tel: +971 2 614 3666 Fax: +971 2 621 1746
Website: www.awqaf.gov.ae

Efforts are under way to make the emirate a regional cultural centre

# Striking a balance

## Preserving local traditions and history while developing new cultural and educational resources

Like most of the UAE, Abu Dhabi's population is largely made up of expatriate employees and foreign workers. As of 2011, the most recent year for which full statistics are available, non-nationals accounted for 80% of the emirate's total population, according to the Statistics Centre – Abu Dhabi (SCAD). While this number has grown slightly since the UAE achieved independence in 1971 – from around 74% in 1975, for example, to 76% in 1995 – in general it has remained fairly consistent, even as the overall population has expanded from 211,812 in 1975 to 1.97m in mid-2010.

While foreign workers have played a vital role in the UAE's economic expansion over the past four decades, their growing presence throughout the country has also given rise to a number of challenges. Perhaps most importantly, as the nation has become an increasingly cosmopolitan society, the government has worked to preserve the local identity upon which it was built. Maintaining the UAE's distinct cultural heritage has been a cornerstone of the government's development policy for years. Indeed, the country has invested heavily in a variety of heritage-related development and preservation projects in recent years.

Abu Dhabi has been one of the most active emirates in this respect. In addition to overseeing numerous museums, festivals and archaeological activities, the local government is working to turn the emirate into a regional centre for cultural activity and education. The emirate is overseeing the construction of a handful of major museum and university projects, currently in various states of completion. As these developments come on-line over the course of the coming decade, Abu Dhabi's reputation as a major cultural destination in the Middle East is expected to continue to grow.

**OVERSIGHT & REGULATION:** Several local and federal authorities are involved in the protection and expansion of Abu Dhabi's cultural heritage. In February 2012 the government launched the Abu Dhabi Tourism and Culture Authority (TCA), a new organisation that was created by combining the Abu Dhabi Authority for Culture and Heritage (ADACH) and the Abu Dhabi Tourism Authority (ADTA). The formation of TCA is indicative of the growing importance of culture and heritage in the emirate's long-term development plans – bringing together the culture and heritage authority and the tourism authority under one roof is expected to result in increased collaboration and, eventually, new benefits on both sides.

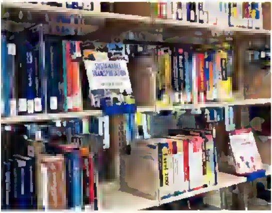
The oversight of cultural heritage comes under the authority of several organisations, including the Abu Dhabi Tourism and Culture Authority, which was created in 2012

While TCA replaces ADACH and ADTA, both former authorities will continue to function as semi-independent departments under the new entity. Prior to the launch of TCA in early 2012, ADACH, which was created in 2005, had a mandate to turn the emirate into a cultural centre in the region and promote local culture and traditions around the world. ADACH oversaw a wide range of institutions and proceedings, including various archaeological sites, historic buildings and neighbourhoods, natural and cultural landscapes, museums, and numerous festivals and conferences. Additionally, ADACH worked to protect and preserve Abu Dhabi's intangible heritage, including oral literature and folklore, customs and beliefs, games and sports, and the performing arts, all of which are considered to be vital parts of the emirate's rich history.

As of early 2012, these areas fall under the umbrella of TCA. In addition to the new authority, a number of other organisations are involved in preserving the emirate's culture and heritage, including the state's Tourism Development and Investment Company (TDIC), the federal Ministry of Culture, Youth and Community Development, and the federal National Council for Tourism and Antiquities (NCTA).

**HISTORICAL SITES:** Abu Dhabi boasts a plethora of historical ruins and other sites. The cultural sites of Al Ain, which include the Bida Bint Sand, Hili, Hafit and Oases areas, achieved UNESCO World Heritage status in 2011 and are among the emirate's most impressive heritage assets. Al Ain is home to a number of structures (stone tombs, wells and adobe buildings and towers) that date back to 2500 BCE. Hili, one of the most important sites

The emirate boasts a number of important historical sites, several of which have been given World Heritage status by UNESCO.



A number of new education initiatives are under way to help promote the emirate's cultural heritage

in the UAE, also features an extensive and well-preserved *aflaj* (ancient irrigation) network from the Iron Age.

In 2012 the NCTA submitted a list of six other sites in the UAE to UNESCO for consideration as World Heritage sites, including one – the ancient settlement and cemetery of Umm An Nar Island – in Abu Dhabi. The Umm An Nar archaeological sites, which are located on a small island in what is now Abu Dhabi City, include remnants of an ancient trading and maritime civilisation that was active in the third century BCE. The government has invested heavily in archaeological and restoration work at Al Ain and Umm An Nar over the past few decades, and work is ongoing today.

**MUSEUMS & EDUCATION:** Abu Dhabi's government operates a number of museums and other cultural preservation centres throughout the emirate. The Al Ain National Museum, for example, houses a wide variety of historical artefacts and structures, including a well-preserved fort built in 1910. The Al Ain Palace Museum, meanwhile, is the former home of Sheikh Zayed bin Sultan Al Nahyan, the founder of the UAE and the former ruler of Abu Dhabi. The building is home to a large collection of documents and other ephemera related to Sheikh Zayed's life and rule. Other heritage sites in Abu Dhabi include Al Jahili Fort, Sheikh Zayed's birthplace; the Sheikh Zayed Grand Mosque and Library; the Zayed Centre in Abu Dhabi City; the Al Qattara Arts Centre, which includes galleries, classrooms and performance spaces; the Hili Archaeological Gardens; a heritage theme park in Al Ain; a heritage village in Abu Dhabi City; and the UAE University Natural History Museum.

In addition to these physical destinations, the government has invested in preserving the emirate's intangible history primarily through a handful of education initiatives and a variety of festivals and other gatherings. The Arabic language, which is seen as a cornerstone of Abu Dhabi's Arab heritage, is taught in the school system from an early age, for example. At university and post-graduate levels, meanwhile, the government offers both fellowships and other funding for students and faculty members involved in the study of the emirate's cultural history. The government also supports a number of annual festivals, including the Abu Dhabi Film Festival, the Abu Dhabi International Book Fair, the Al Dhafra Festival, which highlights the emirate's history as a centre for purebred camel breeding and trading, and the Prince of Poets Festival, which promotes classical Arabic poetry.

**AN EXPANDED FOCUS:** Over the past decade Abu Dhabi has taken an ambitious approach to cultural development, launching several large-scale museum and education projects. These include the Zayed National Museum, due to open in 2016; the Louvre Abu Dhabi (2015); the Guggenheim Abu Dhabi (2017); New York University Abu Dhabi (2010); the Masdar Institute of Science and Technology (2011), which is linked with the Massachusetts Institute of Technology in the US; and the Paris Sorbonne Abu Dhabi (2007). Together, these initiatives have the potential to turn the emirate into a centre for culture and higher education in the Middle East. Most of these institutions will eventually be based on Saadiyat Island – located next to Abu Dhabi City – which is being master-planned by TDIC. Other projects currently under way on the island include a performing arts centre designed by the Iraqi-American architect Zaha Hadid, a maritime museum, and a number of art, museum and performance spaces.

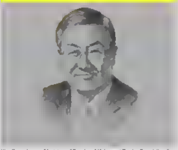
The Zayed National Museum, which was designed by the British architect Norman Foster, is being developed in conjunction with the British Museum. The museum will house seven permanent galleries, one of which will focus on the life and achievements of Sheikh Zayed, with the other seven highlighting key cultural topics, including falconry, conservation science and Islam.

The Louvre Abu Dhabi, which was designed by the French architect Jean Nouvel, will be the first Louvre-branded museum outside Paris. A collaboration between the French museum and the government of Abu Dhabi, the Louvre Abu Dhabi will show fine art from around the world, with a focus on both Arab artists and artwork from the Middle East and North Africa region.

Similarly, the Guggenheim Abu Dhabi, which was designed by the Canadian-American architect Frank Gehry, is a collaboration between the New York-based Solomon R Guggenheim Foundation and the government of Abu Dhabi. At around 30,000 sq metres, it will be the largest Guggenheim museum in the world upon its completion. The facility will show primarily international modern and contemporary art.

These new cultural facilities are representative of Abu Dhabi's ambitious and complex development agenda for the coming years. By opening local branches of two of the world's widely known museums the government is both shoring up the emirate's status as a centre for international culture and confirming that there is plenty of room for foreign cultural expression in Arab society. Indeed, a key goal of the development of Saadiyat Island as a cultural tourism destination is to highlight the ways in which Abu Dhabi's own cultural traditions have both inspired and drawn upon other cultures from elsewhere in the region and around the world.

The government is hoping to make the emirate a cultural centre for the region, and is working leading international museums and galleries to help develop local offerings



Kim Sung-hwan, Minister of Foreign Affairs and Trade, Republic of Korea

# A key partner

## OBG talks to Kim Sung-hwan, Minister of Foreign Affairs and Trade, Republic of Korea

**Where do you anticipate greater bilateral cooperation between South Korea and the UAE?**

**KIM:** Having established diplomatic relations in 1980, in 2009 South Korea and the UAE upgraded our relations to a strategic partnership, which has allowed both nations to forge stronger bonds of cooperation. In 2011, bilateral trade volume totalled $22bn, making the UAE our 11th-largest trading partner.

Furthermore, bilateral investment has more than doubled from $116m in 2010 to $286m in 2011, strengthening the UAE's position as South Korea's most valuable investment partner in the Gulf region. In addition to strong economic ties, we have sought to build our partnership by expanding cooperation in other fields. South Korean hospitals have treated many patients from the UAE, and we are now working to provide the same health care services in the UAE. South Korea and the UAE are also jointly training engineers in the field of nuclear energy.

As the scope of our cooperation continues to expand, I am confident that in the years ahead we will witness more cases of joint enterprise between our two countries in various fields, leading to more people travelling between South Korea and the UAE. The increasing number of Korean language courses now being offered at universities in the UAE will be of great value in reinforcing this friendship between our two nations.

**What role can Abu Dhabi and the UAE play in leading the transition towards renewable energy?**

**KIM:** South Korea and the UAE are similar in many respects. We both endeavour to deepen our knowledge and acquire innovative entrepreneurship skills, based on a robust market economy.

These factors have led us to make joint investments in a variety of fields. In the area of renewable energy, I am confident that the UAE will become one of our key partners in raising international interest in green growth.

South Korea and the UAE are among the key members in two international organisations related to the use of renewable energy. The UAE is home to the secretariat of the International Renewable Energy Agency, which will see its role expand as the need for renewable energy continues to increase.

Moreover, Abu Dhabi hosts the regional office of the Global Green Growth Institute (GGGI), a South Korea-based organisation that is devoted to the development of green growth strategies.

I am pleased that South Korea and the UAE, along with 14 other countries, signed the Agreement on the Establishment of the GGGI at the 2012 UN Conference on Sustainable Development, and we are delighted to have the UAE as one of the founding members of the GGGI. Looking ahead, I am confident that the UAE will play a valuable role in the continued promotion of green growth in the Gulf region.

**The GCC was one of the least affected parts of the world during the economic downturn. Do you feel that there are lessons from the bloc's economic development that can be emulated elsewhere?**

**KIM:** The economic turmoil that began in 2008 has affected every major economy around the world, from the US, EU and Asia – and the GCC is no exception. Amidst ever-increasing uncertainty, companies had to make tough decisions and take more risks.

Nonetheless, the GCC economies have withstood the economic turmoil, and their small and medium-sized enterprises have grown to be more innovative and future-oriented. With its strong leadership and the willingness to cope with challenges, the GCC has been one of South Korea's most stable partners, and South Korea is willing to expand the scope of cooperation with the GCC member countries.

Furthermore, the GCC has strived to realise the hopes of its people and has provided clear direction to move towards an even brighter future. This is indeed well illustrated by the efforts the UAE has made for the realisation of the goals that have been set out in both the Abu Dhabi Economic Vision 2030, and UAE Vision 2021.

Janet Napolitano, US Secretary of Homeland Security

# Strengthening ties

## Janet Napolitano, US Secretary of Homeland Security, on partnering to promote growth

The US and UAE enjoy a close relationship built on a shared commitment to security and continued economic growth between and within our countries. As a central aspect of this relationship, the Department of Homeland Security (DHS) – together with our other US federal partners – work closely on matters of mutual concern with Abu Dhabi and the UAE government, and with multilateral and non-governmental organisations and private sector partners.

The US and the UAE have strong commercial links, with over $16bn in bilateral trade in 2011. The emirate of Abu Dhabi is a hub of global travel and trade, and a last point of departure to the US for passenger aircraft, as well as air and sea cargo. Under the leadership of President Barack Obama and Sheikh Khalifa bin Zayed Al Nahyan, the partnership between our countries has continued to advance.

In December of 2011, I met in Abu Dhabi with Crown Prince Sheikh Mohammed bin Zayed Al Nahyan to set up an Immigration Advisory Program (IAP), as a first step toward the establishment of a passenger preclearance pilot programme. The IAP places US Customs and Immigration officers at Abu Dhabi International Airport to advise Emirati law enforcement about the admissibility of passengers into the US prior to their boarding a plane. Ultimately, IAP will lay the foundation for a pre-clearance pilot, which will allow passengers traveling to the US to be fully screened in Abu Dhabi, helping us to identify potential threats while facilitating a more efficient passenger experience.

The agreement signed in Abu Dhabi, along with the IAP agreement signed in Doha just days earlier, were the first of their kind in the Middle East, representing our increased engagement with the Gulf region.

Our increased collaboration reflects the reality that Abu Dhabi and the US share common goals, values and challenges. Both countries must contend not only with domestic criminal activity, but also with terrorism and transnational crime, cybercrime, human smuggling and trafficking, natural disasters, and the need to protect our people while respecting civil rights and civil liberties. Moreover, both countries have a vested interest in facilitating trade and travel, upon which both our economies rely.

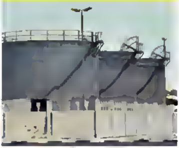
In our ongoing mutual partnership with the UAE, DHS has placed personnel from the US Immigration and Customs Enforcement, the US Customs and Border Protection and the US Transportation Security Administration in the Emirates. Through this collaboration, we have conducted visa security checks to prevent terrorists and other criminals from exploiting the visa process, seized millions of dollars worth of smuggled currency and helped Abu Dhabi build a state-of-the-art Customs Academy.

In addition, we have worked together to better secure the global supply chain. As a key shipment and trans-shipment point, the UAE is an important partner in this effort, participating in efforts such as the DHS-led Container Security Initiative, which prescreens high-risk shipments bound for the US.

Beyond our security relationship, we also collaborate on emergency management, an area where the UAE has done important work to build capacity and enhance community preparedness. DHS has worked with the Emirates Foundation to develop a community emergency response team programme based on a model that is currently being used in the US, but tailored to the unique needs of the UAE.

Together, DHS and Abu Dhabi have formed a partnership built on our shared economic and security interests. Through this partnership we are making the global supply chain that drives job creation in both our countries more secure, efficient and resilient and we are making Americans, Emiratis and all those who travel between our countries safer.

DHS looks forward to furthering our close collaboration with the emirate of Abu Dhabi and the UAE as a whole. With stronger ties between our two countries, we can better promote growth while increasing the security and prosperity of all of our people.


Hydrocarbons exports remain the country's chief source of revenues

# Joining the nuclear family

## Plans to develop a civilian programme are well under way

As the home of the federal seat and the location of the great majority of the UAE's oil reserves, Abu Dhabi has played a key role in developing the country's reputation as a major political and economic player. While trade and other economic ties have been central to the UAE's foreign policy for years, over the past decade energy policy, in particular, has become a cornerstone of the government's diplomatic efforts.

In 2008 the government published a policy for the evaluation and potential development of peaceful nuclear power, and subsequently announced plans to develop a civilian nuclear power programme. The government has worked with a host of foreign powers and international consortia on all aspects of the plan, including drawing up a comprehensive regulatory framework, building the infrastructure to support the network, constructing the plants themselves, and developing and implementing safeguards and security measures.

**FAR-FLUNG FRIENDSHIPS:** The UAE's foreign policy is based on a handful of key objectives, which include facilitating the growth of the nation's international trade and investments, building up technical diplomatic capacity at home; and promoting the UAE's position as a regional leader in energy and environmental protection. Over recent years, hydrocarbons and related products have accounted for more than 90% of Abu Dhabi's exports, with the great majority of local production going to a handful of Asian countries, according to the Statistics Centre – Abu Dhabi.

In 2010 more than 75% of Abu Dhabi's total crude oil exports of 747m barrels went to just four nations: Japan, South Korea, Thailand and India. The top four recipients of its refined petroleum exports in 2011, meanwhile, were the Netherlands, Japan, South Korea and Taiwan, which together accounted for around 55% of the emirate's refined exports.

**COOPERATION:** Abu Dhabi's strong existing economic and diplomatic relations have helped facilitate the development of the UAE's nuclear programme. In December 2009 the Emirates Nuclear Energy Corporation, the government-owned firm charged with building and operating the country's nuclear power infrastructure, awarded a $20bn contract to the Korea Electric Power Corporation to build the first civilian nuclear power plant in the Middle East. The first of four plants, each of which will have a capacity of 1400 MW, is to come on line in mid-2017, with one additional facility completed each year until 2020. Nuclear energy will provide baseload electricity to power growth while saving 12m tonnes of $CO_2$ emissions each year. In addition to South Korea, in its drive to bring nuclear power to the Gulf the UAE has established close working relationships with various nations and international entities. Most recently, in September 2012 it signed an agreement that will allow Canadian firms to supply uranium, equipment and services to ENEC. This follows a similar agreement made with Australia in August 2012.

The UAE has established close working relationships with a variety of foreign nations and international entities in its bid to establish a civilian nuclear power programme.

The Federal Authority for Nuclear Regulation, established in September 2009, has a mandate to regulate the industry in line with the country's numerous multilateral and bilateral agreements and treaties. In addition to its membership in the International Atomic Energy Agency (IAEA), the UAE is a signatory to the Treaty on the Non-Proliferation of Nuclear Weapons, and has entered into bilateral nuclear-related agreements with South Korea, Japan, France, the US, the UK, Canada, Australia and Finland. The country has also appointed an independent International Advisory Board (IAB) to provide a regular assessment of the nuclear programme. The board, which meets on a biannual basis and reports directly to the UAE's Council of Ministers, is composed of a number of international nuclear experts.

Headed by Hans Blix, the former head of the IAEA and the UN's Monitoring, Verification and Inspection Commission, the board's other members include the chairman of the UK Atomic Energy Authority, the president of the Japan Atomic Industrial Forum, and a professor of nuclear and mechanical engineering at the Massachusetts Institute of Technology, in addition to nuclear experts from South Korea, France and Finland.

A trial run of the scheme ended with the filing of 13 patents

# Patents pending

## A new initiative aims to encourage innovation

The Takamul initiative aims to bring about major advances in the emirate's national security, health sector and environmental industry

In late January 2012 the Abu Dhabi Technology Development Committee (TDC) launched a new initiative with the goal of stoking innovation and knowledge based economic development. Known as Takamul – which means "integration" in Arabic – the programme offers financial support and legal guidance to local start-ups, entrepreneurs, and other technology based research and development (R&D) organisations.

The first phase, which is currently under way, is meant to boost the number of international patents granted to Abu Dhabi-based entities. "Patents are an important part of the innovation lifecycle as they facilitate the technology transfer process," said Ahmed Saeed Al Calily, the director-general of the TDC. "Patent output from Abu Dhabi is relatively low, which Takamul aims to address during its initial phase."

**DRIVING DEVELOPMENT:** The TDC has a mandate to "encourage, support and supervise the development of science, technology and innovation" (STI) at all levels in Abu Dhabi. The government's long-term STI plan is meant to transform a handful of key sectors, including oil and gas services, semiconductor development and manufacturing, the aerospace industry, clean technology development, and the information and communications technology sector. Additionally, the STI plan also aims to bring about major advances in the emirate's national security and health sector, as well as the environmental industry.

With these goals in mind, the TDC spent the past three years analysing Abu Dhabi's existing STI framework. The committee has organised its efforts into five critical policy areas: human capital, R&D, infrastructure, enterprise development, and laws and regulations. The Takamul programme is expected to touch on almost all of these areas. In particular, the initiative has the potential to positively impact R&D and enterprise development. While the initial phase will focus on increasing patent output from local organisations, later stages will include support for patent commercialisation and product licensing, according to reports from the TDC.

**HOME-GROWN INNOVATION:** While the official launch of Takamul took place in early 2012, a pilot version was carried out in 2011. This trial run achieved positive results, with 13 patents being filed in a wide variety of areas, and as of November 2012 35 more were expected to be filed before the end of 2013.

With support from Takamul, a research team at UAE University (UAEU) received a patent for an organic antibiotic that has the potential to protect against food-borne bacteria. The compound comes from a unique type of sugar that is found in the pits of dates.

Another Takamul-supported team operating out of UAEU received a patent for developing a method to synthesise carbon nanotubes out of microalgae by-products. This new process could potentially have major ramifications for a wide variety of manufacturing products, including semiconductors, synthetic lubricants and various electronics, among others.

**MASDAR:** Another early beneficiary of the Takamul initiative was the Masdar Institute of Science and Technology, a government-led graduate-level university developed in conjunction with the US-based Massachusetts Institute of Technology.

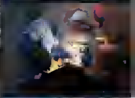
Masdar received a number of patents under the programme, including one for the development of a networked cellulose material, which could potentially be used to lower the costs associated with manufacturing pharmaceuticals. The university also received a patent for work on a new biodegradable nano composite material that could eventually be used as a substitute for plastic.

The Takamul pilot programme also supported researchers at the Abu Dhabi National Oil Company's Petroleum Institute in developing an algorithm that could help oil exploration teams identify deposits faster and more accurately; a team from UAEU that is working on a device to detect poisonous gases in the hydrocarbons industry; and a team from Abu Dhabi-based Khalifa University that is now working on military-grade cryptography technology for broadband networks.

# Economy

Approval for major development projects augurs well
Focus on upping Emirati private sector employment
Nurturing the development of SMEs a key goal
Diversification away from reliance on hydrocarbons
Selected sectors receiving strong government backing
New companies law to improve corporate governance




# Our Economic
## Survey Program:

Working for the sustainable development of Abu Dhabi

Statistic Centre – Abu Dhabi is committed to supporting sustainable development in the emirate of Abu Dhabi through the production and dissemination of reliable statistics that enable fact-based decision making and precise monitoring of the Emirate's development plans

SCAD is currently conducting its periodic economic survey program, one of the major statistical projects for Abu Dhabi The survey covers the economic activity of establishments during the years 2010 and 2011.

The program consists of three different surveys. the Economic Survey, the Foreign Investment Survey and the Environmental Survey. It covers a sample of up to 5,000 establishments simultaneously

The surveys will provide a database that will be used in the construction of Abu Dhabi domestic accounts and the calculation of GDP components.

مركز الإحصاء أبوظبي
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For more information please visit:

www.scad.ae

The emirate's GDP grew by 30% in nominal terms in 2011

# The long view

## According to government plans, growth will be supported by added development in selected sectors

Thanks in large part to high oil prices and an increase in its hydrocarbons production, Abu Dhabi continued its economic recovery in 2011. Hydrocarbons remain at the centre of the emirate's economy, accounting for nearly half of its GDP and almost 90% of government revenues in 2010. However, the government has a different vision for the future of Abu Dhabi, with far-reaching plans to develop fledgling areas of activity such as manufacturing and tourism. To this end, the emirate has been actively re-channelling its significant oil earnings into other sectors such that it will be able to reduce its dependence on hydrocarbons in the longer run.

**AMBITIOUS DEVELOPMENT:** Since 2008 the government has been at the centre of an ambitious development plan, with the state helping to finance projects that have literally changed the landscape of the emirate in a few short years. However, despite its continued growth and steadily increasing oil revenues since 2009, Abu Dhabi has not been immune to the larger global economic challenges that have prevailed of late, including Europe's sovereign debt troubles and a slow recovery in the US.

Perhaps for this reason, in 2011 the government temporarily put on hold some of its more ambitious plans, but in early 2012 it announced that it had approved a number of investments in new and continuing projects. This seems to have bolstered confidence in the emirate and bodes well for Abu Dhabi's ongoing economic development and diversification.

**Foreign trade indicators, 2009-11** (% of GDP)

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Total exports | 40.1 | 46.5 | 51.7 |
| Oil, gas & oil products exports | 36.7 | 44.8 | 46.5 |
| Non-oil exports | 1.8 | 1.9 | 1.4 |
| Re-exports | 1.6 | 1.8 | 1.4 |
| Imports | 17.5 | 14 | 14.4 |

SOURCE: Statistics Centre – Abu Dhabi

**CONTINUED GROWTH:** The emirate's GDP increased by 29.9% in nominal terms in 2011, reaching Dh806bn ($219.5bn), according to preliminary data released by the Statistics Centre – Abu Dhabi (SCAD) in its Statistical Yearbook of Abu Dhabi 2012. Growth in real terms that is after factoring in inflation, at 2007 constant prices was Dh607bn ($165.4bn) while the National Bureau of Statistics has calculated this figure for the UAE as growing by 4.2% in 2011.

In a statement accompanying the 2011 data release, SCAD said that the figures confirmed that Abu Dhabi had overcome the repercussions of the global financial crisis, posting significant growth in all activities and sectors, both oil and non-oil. The former grew by an impressive 53.1% in nominal terms, fuelled in part by the rise in global oil prices. An increase in oil output also contributed to the jump in GDP, according to Giyas Gökkent, the group chief economist at National Bank of Abu Dhabi (NBAD), the emirate's largest bank. "The boost in growth in 2011 was driven largely by a rise in oil production, as the GCC countries, including the UAE, stepped in to make up for Libya's reduced capacity in the wake of political instability in that country," he told OBG.

**LONG-TERM GOALS:** The oil and gas industry continues to play a central role in the economy of Abu Dhabi, accounting for 58.5% of GDP in 2011, according to SCAD, but the non-oil sector has exhibited growth in recent years as well, rising by 5.4% in 2010 and 7% in 2011, reaching Dh334.3bn ($91.1bn) in the latter year. Indeed, one of the key objectives of Abu Dhabi Economic Vision 2030, the emirate's long-term economic development plan, is to diversify the economy and reduce dependence on oil, targeting for it to comprise a 36% share of GDP by 2030.

Published in 2008, Economic Vision 2030 identifies the priorities to achieve the government's goals: building an open and globally integrated business environment; adopting a disciplined fiscal policy that is responsive to economic cycles, establishing a

The emirate has been channelling its substantial oil earnings into other sectors to reduce its reliance on hydrocarbons in the long term.

The development road map has targeted 12 sectors for expansion

Mubadala is a catalyst for the economic diversification of Abu Dhabi. Its mission is to generate financial returns and build businesses, clusters of expertise and new industries.

resilient monetary and financial market environment with manageable levels of inflation; improving labour market efficiency; laying infrastructure capable of supporting economic growth; developing a highly skilled and productive workforce; and enabling financial markets to become the key financiers of economic sectors and projects.

**PRIORITY SECTORS:** According to this road map for development, economic growth and diversification will be supported by the expansion of 12 sectors: oil and gas, petrochemicals, metals, aviation, aerospace and defence; pharmaceuticals, biotechnology and life sciences, tourism; health care equipment and services transportation, trade and logistics; education; media; financial services; and tele coms services. In

**GDP by economic activity at current prices, 2009-11** (Dh bn)

| Activity | 2009 | 2010* | 2011* |
|---|---|---|---|
| Agriculture, forestry & fishing | 4.70 | 4.80 | 4.84 |
| Mining & quarrying (incl. oil & gas) | 239.01 | 309.02 | 471.70 |
| Manufacturing | 25.99 | 33.32 | 40.50 |
| Electricity, gas, water, waste management | 14.68 | 14.60 | 16.14 |
| Construction | 79.31 | 80.93 | 81.07 |
| Wholesale & retail trade, repair of vehicles | 28.08 | 25.65 | 30.85 |
| Transport & storage | 15.40 | 16.84 | 20.62 |
| Accommodation & food services | 6.25 | 6.57 | 6.80 |
| Information & communication | 24.02 | 22.88 | 22.53 |
| Financial & insurance | 30.15 | 34.50 | 35.20 |
| Real estate | 23.83 | 25.39 | 28.15 |
| Professional, scientific & technical | 17.35 | 18.42 | 18.75 |
| Admin. & support services | 9.70 | 10.37 | 10.90 |
| Public admin. & defence, compulsory social security | 20.56 | 23.23 | 25.35 |
| Education | 7.50 | 8.92 | 9.85 |
| Human health & social work | 3.72 | 4.02 | 4.40 |
| Arts, recreation & other services | 2.07 | 2.21 | 2.32 |
| Activities of households as employers | 1.50 | 1.65 | 1.86 |
| Imputed bank services | -22.58 | -25.99 | -30.43 |
| Total | 535.31 | 620.32 | 806.05 |

SOURCE: Statistics Centre - Abu Dhabi

*Preliminary estimates

order to realise the expansion of these sectors and support economic diversification, the government has invested heavily in infrastructure and other development projects. This has been achieved partly thanks to the activities of fully owned government entities, such as Abu Dhabi National Oil Company, General Holding Company, Mubadala Development Company, and the Tourism Development and Investment Company (TDIC), among others.

Established by the government of Abu Dhabi in 2002, Mubadala is a catalyst for the economic diversification of Abu Dhabi. According to the company, its mission is to generate sustainable financial returns and build businesses, clusters of expertise and whole new industries. Mubadala manages a diverse portfolio of opportunities, investing for the long term as an active and diligent partner. It is focused on investment and development across multiple sectors, including priority industries such as aerospace, aluminium and semiconductors, as well as areas that deliver clear socio-economic benefits such as health care and real estate. Key social infrastructure projects from Mubadala include Cleveland Clinic Abu Dhabi (see Health chapter) and the development of Al Maryah Island as a new central business district (see Construction and Real Estate chapter).

**STILL THE MAIN PLAYER:** As its activities via Mubadala demonstrate, the government very much remains the enabler of growth, although the longer-term plan is for it to play an increasingly smaller role as the private sector strengthens.

For now, however, the economy remains largely tied to the actions of the government. Indeed, Abu Dhabi went through a period of some economic uncertainty during the second half of 2011, as the Executive Council, the primary decision-making body in the emirate, put on hold certain development projects while it reassessed its priorities.

Among the projects that were delayed was the development of Saadiyat Island, a natural island off the coast of Abu Dhabi that is being developed by TDIC as a cultural centre and touristic destination for the emirate. The island has already been partially developed, with the necessary infrastructure in place, as well as two luxury hotels that opened in late 2011, the Park Hyatt Abu Dhabi Hotel and Villas and the St Regis Saadiyat Island Resort. But the planned main attractions of the island – three new museums, including local branches of the Guggenheim and the Louvre – remained undeveloped beyond the planning stages as of late 2011.

However, in January 2012 the Executive Council announced that it was reactivating a number of government-led projects, including the museums on Saadiyat Island, with the Louvre Abu Dhabi now scheduled to open in 2015, followed by the Zayed National Museum in 2016 and the Guggenheim Abu Dhabi in 2017. At the same time, the Executive Council revealed that it had approved several big-ticket infrastructure projects, including a new terminal for the Abu Dhabi International Airport; roads and a

## Investing in the future...

**...by supporting the diversification of Abu Dhabi's economy**

Founded in 2002, Mubadala is focused on supporting the diversification of the economy and creating strong social returns

Through building businesses in priority sectors, including oil and gas, aerospace, aluminium, renewables, satellite technology, and semiconductors, Mubadala is providing financial returns and clear local economic benefits, such as the provision of career development opportunities and educational pathways for Emirati nationals

Mubadala is also playing a key role in the construction and provision of social infrastructure within Abu Dhabi, particularly in the sectors of real estate and healthcare, and is stimulating private sector growth across the UAE

The country's banking system has a capital adequacy ratio of 20% for regulatory capital and 15.3% for Tier 1 capital, well above the regulatory minimum of 12%.

light rail network, the expansion of maritime facilities, 24 new schools and 14 health centres; the development of Kizad and the construction of two new industrial zones in the Al Gharbia region.

This was welcome news for the economy as a whole but particularly for construction firms, which to an extent rely on contracts from government-owned developers such as TDIC. With a surplus of real estate already on the market, both in the office and residential segments, commercial opportunities are expected to be limited for some time. Moreover, according to the IMF, this excess supply of real estate continues to burden the economy, and the expected completion of additional projects in the coming months and years will add to this pressure.

**FINANCIAL SECTOR:** The resumption of the development projects announced in January could also boost demand for private sector loans. According to the IMF, lending in the UAE overall has been fairly sluggish since 2009, but Gökkent told OBG that Abu Dhabi's lenders grew more rapidly than the overall UAE banking sector in 2011, with assets held by the emirate's publicly listed banks increasing by approximately 10% during the year. Gökkent has attributed the lending expansion in 2011 to the continued implementation of the Economic Vision 2030 plan and a rise in oil receipts, which in turn were partly funnelled back into the economy. It is unlikely that growth in the bank credit market will reach its pre-financial crisis levels, though expansion at a more moderate pace is expected and may ultimately be more beneficial to the economy. As Salem Al Noaimi, the CEO of the Abu Dhabi-based investment company Waha Capital, told OBG, "It is important that everyone has learned the lessons from having an overheated market, particularly as it relates to the financial services industry. While there may be some uncertainty about the UAE lending environment, we still think that the underlying fundamentals of the economy remain very strong."

If demand for loans were to increase, Abu Dhabi's banks are relatively liquid, stable and well positioned to expand their loan books. Official statistics do not exist for Abu Dhabi alone, but the IMF has reported that the UAE banking system as a whole has a capital adequacy ratio of 20% for regulatory capital and 15.3% for Tier 1 capital. This places the country's banks well above the UAE central bank's regulatory minimum of 12% (at least 8% of which must be Tier 1) that has been in place since June 2010.

**PUBLIC FINANCE:** While growth in bank lending has been limited since 2009, spending and investment by the government has in part offset a slowdown in private sector credit growth. The UAE as a whole has carried out an expansionary fiscal policy for the past few years, with the consolidated government non-hydrocarbons primary deficit (which reflects the budgets of the federal, Abu Dhabi, Dubai and

Sharjah governments) increasing to approximately 42% of non-hydrocarbons GDP in 2011, up from 36% in 2010, according to the IMF.

This change between 2010 and 2011 largely reflects a rise in spending by Abu Dhabi due not only to a general rise in current and investment expenditures, but also to the sizeable financial support the government extended to Aldar Properties, a local real estate developer in which it holds a stake, in 2011. As reported by the IMF, in 2011 total Abu Dhabi government spending stood at Dh182bn ($49.6bn), a rise of 14% over the Dh159bn ($43.4bn) recorded in 2010. Looking further back, the increase is more pronounced, with expenditures in 2008 standing at Dh105.4bn ($28.7bn), or 60% of their 2011 level.

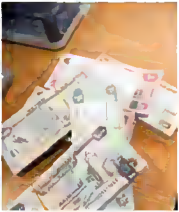
**CONSOLIDATION:** However, fiscal policy is now shifting to a consolidation phase, both at the federal level and for individual emirates. The IMF reported that Dubai has cut its public spending and plans to balance its accounts by 2014, while Abu Dhabi will start implementing a fiscal consolidation plan. The government has made no formal announcements to this effect, but the fact that it temporarily put on hold certain projects in late 2011, with others delayed indefinitely, seems consistent with the IMF's statement. Abu Dhabi's motivation for consolidation at this time remains unclear. However, a reduction in spending now would certainly help build in an extra buffer in the event of materialising downside risks, such as a decline in oil prices.

The finances of the emirate remain largely dependent on oil revenues. In 2010 the government took in Dh192.2bn ($52.3bn), of which oil accounted for around 88%. Similarly, in 2011 state-earned revenues amounted to Dh280.9bn ($76.5bn), with oil representing 93% of this figure.

As long as its hydrocarbons revenues remain high, Abu Dhabi will almost certainly maintain a positive fiscal balance, Gökkent told OBG, adding that he expects a surplus of approximately 4% in 2012.

**SOVEREIGN BONDS:** Thanks predominantly to its oil earnings, in general the government has not needed to borrow money to finance its direct operations. It has issued three sovereign bonds since 2007 with a total face value of $4bn. However, this has been for the purpose of establishing a yield curve, Saeed Almazrouei, the director of the Debt Management Office (DMO), a unit within Abu Dhabi's Department of Finance that was set up in 2009, told OBG (see analysis). Nonetheless, a few of the government's 100% state-owned entities (SOEs), such as TDIC, Mubadala and the International Petroleum Investment Company (IPIC), have tapped into international capital markets to a certain extent. Mubadala has outstanding bonds with a face value of $3.5bn and, according to the IMF, the figure stood at some $10.5bn for IPIC and $2bn for TDIC.

In the past these issuances were largely uncoordinated, but more recently the DMO has begun to organise monthly meetings between government officials and representatives of the SOEs that sell



The emirate is implementing a fiscal consolidation plan

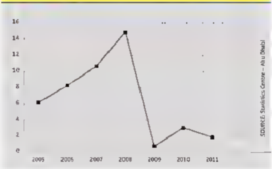
bonds. The primary purpose of these events is to avoid a situation in which all are going to the market at the same time. Moreover, the DMO and the SOEs work together in terms of providing consistent information to investors, at least when it comes to the broad macroeconomic data from a variety of sources. This greater degree of involvement on the part of the government regarding the SOE bond issuances was warmly received by the IMF, which noted that this increase in coordination and oversight should allow for better risk management.

**MONETARY POLICY:** Whether it chooses to directly finance its spending or turn to international capital markets, the government of Abu Dhabi has access to sufficient funds to be able to carry out an expansionary fiscal policy should it wish to.

However, the emirate has less flexibility when it comes to the matter of monetary policy, for two reasons. First, interest rates are set at a federal level by the Central Bank of the UAE. Second, and more importantly, the dirham is pegged to the US dollar, which means that the UAE's central bank generally

The finances of the emirate remain largely dependent on oil revenues. In 2010 the government took in $52.3bn, of which oil accounted for 88%. Similarly, in 2011 state revenues amounted to $76.5bn, with oil representing 93% of this

Inflation, 2005-11 (%)



The consumer price index rose from 119.3 in 2010 to 121.6 in 2011, equivalent to a rate of inflation of 1.9%. This represents a decline since 2010 when it stood at 3.1%, and a steep drop since 2008 when inflation hit 14.5%

needs to synchronise its monetary policy decisions with those of the US Federal Reserve.

**INTEREST RATES:** In the wake of the global economic crisis, the primary concern in terms of interest rates has been keeping them low to stimulate private sector activity, and to this end, the policies of the US and the UAE have been aligned since that time. The Federal Reserve has kept interest rates at near zero since 2008, which in turn has meant that the cost of borrowing in the UAE has remained low. On the other hand, should the economy start to overheat the peg to the dollar also means the UAE central bank would have limited ability to respond to inflationary pressures were the US to maintain low interest rates.

However, this potential constraint seems to be of little concern for now, with inflation remaining at relatively subdued levels. According to SCAD, the consumer price index (CPI) rose from 119.3 in 2010 to 121.6 in 2011, equivalent to about 1.9% inflation. This represents a moderate decline since 2010, when this figure stood at 3.1%, and an even steeper drop since 2008, when inflation hit 14.9%.

Inflation in 2011 was primarily driven by the rising cost of imported food, with the "food and non-alcoholic beverages" group exhibiting the largest increase in prices. The second-greatest contributor to the uptick in the CPI was the "housing, water, electricity, gas and other fuels" group. While prices for this latter group exhibited only a small increase, this category is accorded the largest weight in the index such that even a small rise can significantly affect the CPI. The overall picture for the first eight months of 2012 was largely similar to 2011, with the price index increasing by 1.3% compared to the same period in 2011, according to SCAD. The food and non-alcoholic beverages group was again the primary cause for the rise in the CPI, although the price of housing, water, electricity, gas and other fuels actually fell slightly instead of rising. However, this decline was not sufficient to offset an overall rise in prices.

**TRADE FLOWS:** Abu Dhabi's long term economic development plan has called for a reduction in the contribution of oil to the emirate's economy as a proportion of GDP, but for now hydrocarbons still account for the vast majority of exports and trade more generally. According to the most recent data from SCAD, exports of oil, gas and oil products hit Dh393.4bn ($107.2bn) in 2011, equivalent to 94.5% of total exports, which reached Dh416.5bn ($113.5bn) that year. Otherwise, non-oil exports and re-exports amounted to Dh11.5bn ($3.1bn) and Dh11.6bn ($3.2bn), respectively. Non-oil exports have steadily risen over the past several years, more than tripling since 2005, when they stood at Dh3.2bn ($871m), suggesting that the emirate's economic diversification efforts are starting to have an effect.

Exports of crude oil are predominantly sent to Asia, with Japan accounting for 35.6% of the total in

2010, followed by South Korea, Thailand and India. Meanwhile, the largest importer of refined oil products is the Netherlands, which purchased 16.9% of the 10m tonnes of refined oil products exported in 2011, followed by Japan. Rounding out the hydrocarbons category is natural gas, with Abu Dhabi selling liquefied natural gas mainly to Japan.

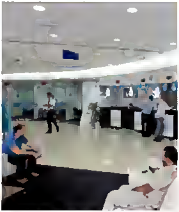
The top purchasers of non-oil exports in 2011 were Canada (23.1%), Saudi Arabia (17.9%) and Brazil (14.5%). In terms of non-oil goods exported, the three largest categories were transport vehicles (39.5%), plastic, rubber and articles thereof (21.3%), and base metals and articles of base metals (22%).

The value of imports is generally significantly smaller than that of exports, with the former amounting to Dh116.4bn ($31.7bn) in 2011. The three largest categories of imports in 2011 were machinery, sound recorders, reproducers and parts (29.5%); transport vehicles (19.3%); and base metals and articles of base metals (21.1%). Major sources of imports for this same period included the US (11.5%), Saudi Arabia (10.5%), Japan (8.5%) and South Korea (10.1%).

**INVESTMENT FLOWS:** Information regarding capital flows to and from the emirate is generally older and more limited than the trade data that the government makes publicly available. According to the most recent report from SCAD, foreign direct investment (FDI) in Abu Dhabi amounted to Dh43.2bn ($11.8bn) in 2009. The largest component of FDI was real estate and business services activity (which includes real estate sales to non-residents), at Dh17bn ($4.6bn), followed by financial institutions and insurance, with investments amounting to Dh6.4bn ($1.7bn). Electricity, gas and water comprised Dh5.9bn ($1.6bn) of investment, placing third. Major foreign direct investors included the UK ($1.2bn), France ($871m), Australia ($844m) and Kuwait ($762m). Portfolio investment into Abu Dhabi was around $2.07bn in 2009, with investments confined to three sectors: construction, financial institutions and insurance, and real estate and business services. Other investments totalled $53bn, most of which was accounted for by capital flows into financial institutions and the insurance sector.

While SCAD has not published FDI data for more recent years, anecdotal evidence certainly suggests that Abu Dhabi has continued to attract the interest of foreign investors. This is, in part, due to the widespread perception that the emirate is a relatively safe option in a region that has experienced some political instability in recent times. Indeed, Abu Dhabi is seen as a stable location in which to establish a point of entry for larger markets in the GCC, the broader Middle East, and East Africa. Peter Michelmore, a senior partner at international law firm Reed Smith, told OBG. He added that the areas of primary interest to foreign investors in 2012 include transport (particularly the new railway line and the airport expansion) and the defence sector.

**PULL FACTORS:** For foreign investors, Abu Dhabi has several attractive features. These include a lack



The government has the funds to carry out an expansive fiscal policy

of foreign exchange controls and a fully convertible currency, zero personal and corporate income taxes, 100% repatriation of capital and profit, and the availability of energy at a low cost.

The emirate has also established free zones that have additional incentives for investors, although Abu Dhabi has been generally slower to embrace this concept than its neighbour, Dubai. Advantages of Abu Dhabi's free zones include 100% foreign ownership (outside of these special areas, this figure is capped at 49%), an absence of import and re-export duties, and no restrictions on hiring foreign employees.

The oldest free zone in the emirate, the twofour54 free zone, which was designed as a media and content development centre, is home to the regional offices of CNN and the BBC, and has been in operation since 2008. Then in January 2011, the government granted free-zone status to the properties of Abu Dhabi Airports Company, which will develop zones around Abu Dhabi International, Al Bateen and Al Ain International. Certain parts of Kizad, a new 420-sq-km industrial zone currently under development, have also been granted free-zone status, while Mubadala subsidiary Masdar also operates a free zone as well.

Launched in 2010, Kizad is a part of the larger Khalifa Port and Industrial Zone (KPIZ), which is a multi-purpose complex being developed by the Abu Dhabi Ports Company and located in the Al Taweela area.

In January 2011 the government granted free-zone status to the properties of Abu Dhabi Airports Company. Parts of Kizad, a new 420-sq-km industrial zone currently under development, also have that status.

**Non-oil goods exports, 2008-11** (Dh m)

| Type | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Agricultural raw materials | 16.4 | 17.2 | 21.3 | 46.2 |
| Food products | 521.1 | 385.8 | 493.5 | 509.7 |
| Manufactured products | 5549.5 | 8538.3 | 10,319.50 | 9880.5 |
| Ores & metals | 97.2 | 216.1 | 737.7 | 989.5 |
| Other goods | 57.6 | 45.4 | 58.7 | 51.7 |
| Total | 6252.0 | 9500.8 | 11,610.6 | 11,476.0 |

SOURCE: Statistics Centre – Abu Dhabi

Zones of a "special economic nature" are designed to make it easier to establish industrial projects.

about equidistant between Abu Dhabi City and the Jebel Ali Port in Dubai. The first phases of Kizad will accommodate various types of light, medium and heavy industries, targeting sectors that include petrochemicals, steel, pharmaceuticals, life sciences, chemicals, biotechnology, metals, food and beverages, logistics and transportation.

Beyond free zones, Abu Dhabi has also set up industrial zones of a "special economic nature", including the Industrial City of Abu Dhabi and Al Ain Industrial City. While these areas do not have all of the advantages of a free zone (for example, foreign ownership is limited to 49%), tenants in these special zones benefit from services designed to make it easier to establish an industrial project, such as a one-stop-shop programme that has streamlined the licensing process. These zones are managed by the Higher Corporation for Specialised Economic Zones, better known as ZonesCorp, which is also responsible for the establishment, management and operation of the specialised economic zone at KPIZ.

**COMPANIES LAW:** As noted above, businesses that set up outside of the emirate's free trade zones are subject to a law that limits foreign nationals to holding 49% of a company's share capital. However with the UAE Cabinet having approved a new draft companies law in December 2011, the country has moved one step closer to allowing majority, if not 100%, foreign ownership. While the draft law does not specify a new cap, it does include an enabling mechanism that will allow for this limit to be raised in the future. At the request of the minister of economy, the Cabinet may issue a resolution determining the forms or classes of firms for which a non-national can hold more than 49% of the share capital, up to 100% ownership. The draft law also specifies that the Cabinet can issue a resolution to identify classes of activities that are limited to UAE nationals.

With the UAE Cabinet having approved a new draft companies law in December 2011, the country has moved closer to allowing majority, if not 100%, foreign ownership. While the law does not specify a new cap, it does include a mechanism that will allow for this limit to be raised in the future

However, the draft law is not limited to a discussion of foreign ownership – in fact it revises many other parts of the current companies law, which has been in place since 1984. For example, it introduces a number of other changes related to the structure of companies, including new shareholding rules. Other developments include a legal requirement that a firm's management and board of directors work in good faith for it, and firms will no longer be able to grant their directors exemption from the personal liability that they bear in their capacity as an officer of the company. These types of rules will help improve corporate governance and likely make it easier for firms to operate in the UAE, which in turn can make the country more attractive to investors.

**LABOUR:** One reason to encourage FDI in Abu Dhabi is to enable economic diversification, as evidenced, for example, by the emirate's efforts to attract industrial projects to its specialised economic zones. But foreign investment can also create employment opportunities for Emiratis in the private sector, another objective that the government has identified in its Economic Vision 2030 (see analysis).

Like many other economies in the GCC, Abu Dhabi has historically employed a large number of expatriate workers, with nationals accounting for 8.3% of the workforce in 2011, according to the latest data from SCAD. The public sector has traditionally been the employer of choice for Emiratis, with 60% of Abu Dhabi's nationals employed in the public administration or defence sectors in 2011. However, with a growing Emirati population, it has become increasingly difficult for the government to absorb all of these potential workers. As of 2011, the unemployment figure for nationals stood at 11.8%.

To address the rising unemployment rate – which the government called "relatively high" in its Economic Vision 2030 – and to help ensure that Emiratis benefit from continued economic growth in Abu Dhabi, policy-makers have focused on increasing the number of nationals who work in the private sector.

The government has taken a multi-pronged approach to meeting this objective, investing in education and training initiatives to reduce any skills gap that may exist, as well as developing job placement programmes that help Emiratis find work. These are steps that, in the longer run, will support further economic development and diversification.

**SMALL IS BEAUTIFUL:** The government has also encouraged private sector employment of Emiratis

**Distribution of public expenditures (%)**

| | 2005 | 2010 | 2011 |
|---|---|---|---|
| Current expenditures | 50.8 | 48.5 | 49.1 |
| Salaries & wages | 9.9 | 11.3 | 10.8 |
| Goods & services | 11.2 | 9.6 | 11.4 |
| Current transfers | 39.8 | 27.6 | 26.9 |
| Capital expenditures | 39.2 | 51.5 | 50.9 |
| Development | 10.9 | 9.1 | 9.7 |
| Goods & services | 0.4 | 17.7 | 17.8 |
| Capital transfers | 27.9 | 24.8 | 23.4 |

SOURCE: Statistics Centre – Abu Dhabi

The approval of major development projects is set to boost growth

The government's main tool for fostering SMEs is the Khalifa Fund for Enterprise Development, which works to create a culture of entrepreneurship among young people.

by supporting the development of small and medium sized enterprises (SMEs). The nurturing of local small businesses is also part of Abu Dhabi's drive towards economic diversification and the positioning of the private sector as the primary engine of growth, as laid out in the Economic Vision 2030.

**KHALIFA FUND:** The government's most significant tool for fostering the establishment of SMEs has been the Khalifa Fund for Enterprise Development. Launched in 2007, the fund works to create a culture of investment and entrepreneurship among young people, providing a support system for new businesses that encompasses training, development, data and consulting services.

In addition, financing is available for viable projects through a number of programmes. These include Khutwa, a microfinance scheme that offers loans of up to Dh250,000 ($68,000) for small enterprises; the Bedaya programme, which supports new SMEs with loans of up to Dh3m ($817,000); Zeyada, through which early-stage SMEs can apply for expansion loans of up to Dh5m ($1.36m); and Tasnea, a venture that places more emphasis on industrial projects requiring larger investments.

For each loan, the borrower must provide a down payment of 10% as a sign of their commitment to the project. Funds are lent at zero interest unless the amount exceeds Dh5m ($1.36m), in which case 3% annual interest is charged. The total volume of financing supplied by the Khalifa Fund has been significant. Since its establishment in 2007, the fund has provided nearly Dh612m ($167m) to some 350 projects. In 2011 alone, the organisation approved financing of Dh151m ($41m) for 78 projects.

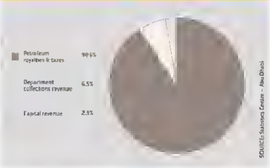
The government's commitment to the Khalifa Fund was underscored by its March 2011 decision to double the organisation's capital from Dh1bn ($272m) to Dh2bn ($544m), which allowed the fund to expand the scope of its services beyond Abu Dhabi and into the other emirates. In January 2012 Hussain Jassim Al Nowais, the chairman of the Khalifa Fund, announced that it would be focusing on supporting the development of businesses in the Northern Emirates in the coming year. Al Nowais also noted a shift in priorities towards micro-businesses and away from larger projects, although he said that the fund would continue to support the latter through its Bedaya, Zeyada and Tasnea programmes.

As in other markets, entrepreneurs can also turn to more traditional sources of small-business financing, such as friends and family, as well as banks. The latter have been more receptive to SMEs in recent years, and are now offering a variety of services ranging from company registration to credit facilities and investment advice. A few of the larger banks have also invested in specialised business units that focus on these clients. However, according to Abdullah Al Darmaki, the CEO of the Khalifa Fund, the private sector's role in financing small businesses remains limited. "SME development in the region is quite nascent so the infrastructure, particularly as it relates to the financing cycle, for start-up companies is still being established. But there is a high level of demand for funding," Al Darmaki told OBG.

**OUTLOOK:** While it may take some time to realise the benefits of investments in SMEs, in the more immediate term the outlook for the Abu Dhabi economy is quite positive. Growth in 2012 will likely not be as great as it was in the previous year, for the simple reason that oil production is unlikely to receive the boost that it did in 2011. According to the IMF, real GDP growth in the UAE is expected to decline to about 2.3% in 2012 from 4.9% in 2011.

Nonetheless, while the hydrocarbons sector of the economy may be slowing, other areas look set to do well in the future, with the approval of major development projects by the Executive Council in January 2012 likely to contribute to economic expansion in the emirate. Future fiscal consolidation could put the brakes on growth in the coming years, but any reduction in spending and investment is expected to come at a gradual pace such that it is unlikely to affect the economic recovery to a major extent.

Distribution of government revenues, 2011




The Cabinet approved the new Commercial Companies Law in 2011

# Welcome changes

## A new law is set to alter the structure of companies

In December 2011 the UAE Cabinet approved a new draft Commercial Companies Law that will replace the companies law that has been in place since 1984. Under development for several years, the new law as specified by the draft could spur investment in Abu Dhabi by making it easier to operate in the UAE and improving corporate governance. However, when it comes to perhaps the most heavily anticipated change – a loosening of foreign ownership restrictions – the draft did not raise the current limit of 49% that non-UAE nationals can currently hold. Nonetheless, it does contain a so-called enabling provision that would allow the cabinet to issue subsequent resolutions on this issue.

**SHAREHOLDING:** While much of the attention has focused on foreign ownership rules, the draft law introduces several other changes related to the structure of companies, including new shareholding rules. For example, sole shareholders will now be allowed for both limited liability companies (LLCs) and private joint stock companies (PrJSCs). Previously, LLCs required at least two founding members, and PrJSCs three. This welcome change will allow individuals to benefit from limited liability without having to take on a partner.

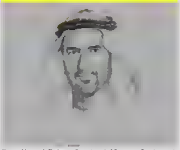
The new rules will help ensure the efficiency and integrity of a company's management and board of directors, who will now legally be required to preserve the company's rights and work faithfully for the benefit of the company. For example, a manager of an LLC will not able to able to undertake a deal that would result in increased competition for the company without the consent of the general assembly. Firms will also no longer be able to grant their directors exemption from the personal liability that they bear in their capacity as an officer of the company. Other changes include new rules regarding the composition of boards of directors, although this development is tied in part to the potential future loosening of foreign ownership regulations. That is, if non-UAE nationals are authorised to hold more than 49% of a company, then a majority of its board members can be non-nationals, as can the chairman. This could benefit firms by allowing them to draw upon a wider pool of potential officers.

**FOREIGN OWNERSHIP:** For more than 49% of a firm to be owned by a non-national, the present limit on foreign ownership will need to be raised. While the draft does not specify a new cap, it does provide a legal mechanism that would allow for this limit to be changed. At the request of the minister of economy, the cabinet may issue a resolution determining the forms of companies or classes of companies that may be held in full by a foreign national. The cabinet can also identify cases where a non-UAE national can hold more than 49%, but less than 100%, of the share capital.

Although the government has yet to identify what types of firms might qualify for the higher limits, the list is likely to include sectors that require substantial investment, such as technology, insurance, and research and development programmes, Jitendra Gianchandani, the chairman and managing partner of the business advisory Jitendra Consulting Group in Dubai, told local newspaper *The National* in December 2011. Alternatively, the cabinet could produce a "negative list", with the law specifying that the cabinet be allowed to issue a resolution that identifies a class of activities limited to UAE nationals. This scheme is in use in some GCC countries, such as Saudi Arabia, where foreign ownership is limited in certain sectors such as defence.

While the draft law stops short of raising the foreign ownership limit, its eventual approval and implementation would likely benefit both the UAE and Abu Dhabi. The current companies law is nearly three decades old and was drafted when the legal system and economy of the UAE were less developed. Regarding foreign ownership, the draft law may be a mild disappointment to the investor community in the short run, but the consensus seems to be that the cabinet will issue additional resolutions on this topic – it is just a question of which sectors will be identified and when. However, the current draft law must first of all be approved by the Supreme Council, ratified and signed by the president.

The updated rules will help ensure the efficiency and integrity of companies' management and boards of directors, who will now be legally required to preserve the company's rights and work faithfully for its benefit.



Nasser Alsowaidi, Chairman, Department of Economic Development

# Promoting the private sector

## OBG talks to Nasser Alsowaidi, Chairman, Department of Economic Development (DED)

**Is there a risk that high levels of government spending will crowd out the private sector?**

**ALSOWAIDI:** The net impact of government spending may vary with different conditions: it may increase aggregate demand, stimulating private sector investment in response. Public spending on infrastructure will create opportunities for the private sector. Some may argue that a budget deficit financed by debt will dry up available finance for the private sector, but this is not the case in Abu Dhabi.

According to the "World Investment Report 2011", foreign direct investment (FDI) into GCC countries dropped by about 15% that year. In my view, government spending is essential to compensate for the decline in private investment. The government is not in competition with the private sector; however, the withdrawal of public investment from the productive sectors should be gradual and should coincide with the emergence of a strong, dynamic private sector.

**How can Abu Dhabi best position itself as industrial capacity shifts from traditional centres in the West to more cost competitive environments?**

**ALSOWAIDI:** Abu Dhabi is developing a powerful and efficient industrial sector that will replace traditional oil and gas activities as one of the major contributors to the emirate's economy within the next two decades.

The DED has carried out an industrial strategy for the emirate. Besides several heavy industries being identified to stimulate growth in the industrial sector, a number of industrial zones offer various incentives and cater to a variety of businesses, notably the Khalifa Industrial Zone Abu Dhabi (KIZAD).

These industrial zones offer efficient access to local, regional and international markets in a low-cost environment designed to increase ease of business and profitability. Furthermore, industrial zones such as KIZAD can create competitively priced infrastructure solutions that are tailored to address the specific utilities and logistics needs of major manufacturing projects.

**What can be done to increase job opportunities in population centres outside Abu Dhabi City?**

**ALSOWAIDI:** Economic Vision 2030 emphasises social and economic progress through developing the national labour force, empowering women, attracting skilled foreign workers and accelerating equitable provision of education, health and infrastructure.

There are a number of government entities playing pivotal roles in this effort. In particular, the Abu Dhabi Tawteen Council (ADTC) is ensuring job creation for nationals, offering incentives for companies to set up in the Eastern and Western regions of the emirate. The ADTC holds some partnerships with the private sector, government institutions, and semi-government entities to establish an integrated information system of the labour force in the different regions of the emirate.

In addition, the Western Region Development Council is working to develop a database of career opportunities in the Western Region in cooperation with the Abu Dhabi Systems and Information Centre. This database aims to assist job seekers in finding suitable jobs and monitor information about employers and labour market trends in the Western Region, as well as providing advice on employment and required skills.

**Aside from increased access to funding, what other areas of small and medium-sized enterprises (SME) development need additional support?**

**ALSOWAIDI:** Further action needs to be taken to enable SMEs to capitalise on market opportunities and to link those enterprises to large projects in order to increase their competitiveness. We cannot overlook the government's efforts to develop knowledge-based small businesses, in addition to establishing clusters to support networks of SMEs and decrease operational costs.

The development and establishment of SMEs will enable us to achieve the objectives laid out in Economic Vision 2030: targeting the private sector as the main engine of growth in our economy while increasing the participation of Abu Dhabi nationals in the workforce.

The workforce has grown rapidly tripling over the past 25 years

# Breaking the pattern

## Efforts to increase Emirati participation in the private sector continue

A key aim of Abu Dhabi's labour policies is to increase participation by nationals in the workforce. The government takes a multi-pronged approach, combining employment quotas enforced at the federal level with emirate-specific policies – including investments in education and training and job placement programmes – designed to develop an Emirati labour force that will meet the requirements of local employers.

**LABOUR MARKET:** The emirate's workforce has grown rapidly over the past 25 years. In 1985 the size of the labour force – which includes both employed and unemployed people of age 15 and above – stood at 297,406 according to the Statistics Centre – Abu Dhabi (SCAD). By 2011 – the latest year for which data is available – this had grown to 1.403m, of which 8.3% were nationals. This represents a rise in the national participation rate, which stood at 7.5% in 1985. However, over the same period, the unemployment rate for Emiratis also rose, from 3.5% to 11.8%. Part of the reason for the high unemployment rate in the private sector is that the emirate has adopted priority sectors as key economic drivers which require a highly specialised workforce, such as aerospace, energy, health care, biotechnology, telecoms and others.

In its Economic Vision 2030, published in 2008, the government wrote that Abu Dhabi's unemployment rate was "relatively high", adding that it "aims to reduce this figure to ensure nationals are benefiting from the emirate's development." In October 2011 Rashid Ali Al Zaabi, the executive director of Abu Dhabi's Department of Economic Development, told the *Gulf News* that his organisation was working to reduce the Emirati unemployment rate in Abu Dhabi to under 5% by 2030.

**PUBLIC SECTOR:** The public sector has traditionally been the preferred source of employment for nationals, with 60% of Abu Dhabi's citizens employed in the public administration or defence sectors as of 2011. However, with near saturation of the public sector and a growing national population, it has become difficult for the government to absorb all of these potential national workers. Moreover, there is an issue of productivity and efficiency – the economy may well benefit more from additional private sector workers than from additional employees at public sector entities.

**QUOTAS:** The key question, then, is how to increase private sector labour market participation among Emiratis. One approach that has been adopted by many GCC countries – including the UAE – has been to implement partial quota systems. This type of scheme typically specifies that a certain minimum portion of employees of private sector industries must be nationals. In the UAE quotas were first used in the banking sector, with a 1996 law specifying that at least 4% of bank employees had to be Emirati, with this minimum set to be increased every year. The federal government subsequently introduced similar rules for the insurance and finance sectors in 2003 and 2008, respectively. The UAE then broadened the scope of its quota system in late 2010, with the Ministry of Labour announcing in December that Emiratis should account for no less than 15% of total staff at every UAE-based company.

However, quota systems face challenges. First, they can be difficult to enforce and some firms may try to avoid them by creating positions that exist only on paper. Second, private sector jobs in the UAE are often less well-paid than similar positions in the public sector. According to a World Bank study, recent Emirati graduates in the public sector earn on average $4248 per month, while this figure stands at $2846 for those who work in the private sector. This difference can make it difficult for companies to attract Emiratis.

Recent Emirati graduates in the public sector earn $4248 per month on average, while those who work in the private sector earn $2846. This can make it difficult for companies to attract Emiratis, and they can often fill a position at a lower cost by hiring an expatriate worker

Moreover, private firms can often fill an open position at a lower cost by hiring an expatriate worker. Therefore, on both sides of the equation – supply and demand – persistent wage differentials discourage private sector workforce participation by Emiratis.

Some have suggested subsidising private sector salaries to bring them in line with government pay. In October 2011, Saqr Ghobash, the UAE minister of labour, told a meeting of GCC labour ministers that

The Abu Dhabi Tawteen Council is seeking to reduce the skills gap through training programmes

government programmes to increase Emiratisation in the private sector had little chance of success without wage subsidies. While the cost of such a programme could be high, it would almost certainly be less of a financial burden than creating more government positions.

Moreover, a subsidy scheme could be structured such that the payments for a given worker were phased out over time. Subsidies can be paid towards training or salaries or both. That is, during the early stages of employment, when a firm may not benefit as much from a worker, the government subsidy would be relatively high, but this amount would be reduced over time as the employee acquired the skills and experience necessary to contribute more to the firm. This would lessen the risk of hiring an Emirati, making them more attractive candidates for private sector firms, and therefore making it easier for businesses to meet their quotas.

**ADTC:** While compliance with the UAE quota system is mandatory under federal law, Abu Dhabi has also taken steps to help businesses meet their quotas, as well as more generally encourage private sector companies to voluntarily hire nationals. These efforts have been largely spearheaded by the Abu Dhabi Tawteen Council (ADTC), a government entity established in 2005 that reports directly to the Abu Dhabi Executive Council, the primary policy-making body in the emirate.

The ADTC works to match businesses with Emirati jobseekers, maintaining a database of CVs and available positions at local firms. Information on vacancies is collected from employers by the ADTC's account managers, while a council support team handles jobseeker registration and follows up with individuals after placement. The ADTC's placement team also reviews CVs in the database and tries to identify suitable matches between open positions and those looking for work. The ADTC also develops customised training programmes to help businesses meet their Emiratisation goals. These up-skill jobseekers, preparing them for employment in a number of different sectors, such as manufacturing, health care, education, energy and finance. In many cases, ADTC contributes toward the cost of the training or provides a stipend to participants.

Since 2010 the ADTC has created more than 15 customised training programmes in partnership with semi-government entities and private training institutions. One example is the Fatima Health Sciences Programme in Al Ain, which has the ADTC working with the Abu Dhabi Health Services Company (SEHA) and Fatima College for Health Sciences to target Emiratisation in the health care sector. Participants can earn diplomas in nursing, pharmacy, medical laboratory technology and medical administration. Upon completion of their training, all graduates are guaranteed jobs with SEHA hospitals.

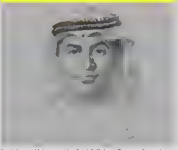
**EDUCATION:** The types of training offered by the ADTC alleviate one of the greatest challenges when it comes to increasing employment of nationals, namely a mismatch between skills and labour market demands. In addition to its efforts via the ADTC, the government has taken steps to reduce any skills gap by implementing a series of education reforms and training initiatives that help ensure that Emirati employees meet the requirements of the private sector. In higher education this has been accomplished in part by inviting a number of foreign universities and academic institutions to establish campuses in the emirate. At the same time, the government has expanded funding for scholarship programmes, which can be used by Emiratis to pursue university degrees abroad. These types of schemes can help prepare nationals for higher-level positions in more technical fields such as engineering and finance.

**ADVETI:** In parallel to its efforts to improve higher-education options for Emiratis, the government has also worked to develop its vocational and technical training base. For example, in 2007 it established Abu Dhabi Vocational Education and Training Institute (ADVETI) with a mandate to develop and deliver vocational education and training designed for Emiratis. ADVETI manages several post-secondary vocational institutions, including the Al Jazirah Institute of Science and Technology in Abu Dhabi and the Al Jaheli Institute of Science and Technology in Al Ain. These schools have a variety of certificate and diploma programmes across a number of fields including business, information technology, tourism, design, environmental studies, industrial technology, logistics and engineering.

ADVETI has seven entities and, at the moment, focuses on education groups including business, information technology, travel and tourism, design, environment studies, industrial technology, and logistics and engineering. In June 2012 the Executive Council announced that five additional secondary schools would be set up in the near future. To help ensure that its graduates are ready to meet the needs of the local labour market on completion of their studies, ADVETI has designed its programmes in consultation with local businesses.

The creation of a skilled national labour force is an important part of helping the government to realise its economic development plans. By supporting training programmes and providing job placement support, Abu Dhabi is taking steps towards ensuring economic diversification and the full employment of Emiratis.

ADVETI has a mandate to develop and deliver vocational education and training designed for Emiratis in fields such as business, information technology, tourism, design, environmental studies and engineering



Butti Ahmed Mohammed bin Butti Al Qubaisi, Director-General, SCAD

# Statistically significant

## OBG talks to Butti Ahmed Mohammed bin Butti Al Qubaisi, Director-General, Statistics Centre – Abu Dhabi (SCAD)

**How does SCAD collate its information? What sources do you use, and do all government departments submit their own data?**

**AL QUBAISI:** As the sole authority in Abu Dhabi responsible for statistical work, SCAD collects data, conducts censuses and surveys, and prepares and publishes official statistics in collaboration with other government entities. This role is crucial for consistency and efficiency in the emirate's statistical system.

SCAD collects data from three main sources: censuses, sample surveys and administrative registers. For censuses and sample surveys, we use multimodal data collection methods, including personal visits and computer assisted telephone and web interviews. Administrative registers are normally kept in the custody of other government entities, over 50 of which have been identified as potential sourcing partners to be used in the compilation of official statistics. SCAD is developing strong ties with these entities in order to secure easy access to their administrative registers and assist these entities in upgrading the quality, maintenance and organisation of their own statistical units.

**How is SCAD working with other branches of government to promote the interpretation and efficient use of the statistics being generated?**

**AL QUBAISI:** SCAD has several initiatives in this respect. Foremost among these is strengthening relations with other government entities through signing memoranda of understanding (MoUs), service-level agreements, and organising technical meetings and workshops.

SCAD is also developing a special communication platform called the Statistical Information System for a number of government entities. Using a secured electronic link, this platform will allow the fast and reliable exchange of data and statistics.

Additionally, the Statistical Training Institute provides training to staff members from other government bodies to enhance the statistical culture within the emirate and to ensure the efficient use of those statistics.

SCAD now has an advisory committee that seeks to gain a better understanding of the uses for our statistics and to increase knowledge about what other areas may need to be covered. We also plan to start operations for an international advisory body to help us achieve the next step in development. The Centre is constantly monitoring the level of statistical awareness in Abu Dhabi and the level of satisfaction among users.

**What plans does SCAD have for extending the breadth of statistical analysis?**

**AL QUBAISI:** SCAD has identified two main areas of development. The first is ensuring that decision-makers receive not only statistics, but also specialised analyses, so that critical decisions are based on correctly inferred figures. The second is to continue improving the quality and breadth of statistical coverage by continuously updating official statistics and methodologies according to international standards. SCAD's commitment to meeting user requirements will help improve the range, frequency, and quality of published data.

**How is the Centre engaging with the private sector and potential investors in Abu Dhabi to ensure the relevance of the statistical analyses produced?**

**AL QUBAISI:** SCAD's outreach is not limited to the public sector, and it also targets private enterprises, both locally and internationally. One of the most important initiatives in this respect is SCAD's participation in Hannover Messe, the world's largest industrial fair. Our role in this event is to boost the confidence of potential investors by making available high-quality statistics.

SCAD engages with private establishments through its economic surveys. While the main aim of this exercise is to collect data from the different sectors, SCAD has established relationships with up to 5000 companies in some surveys. The Centre repeats this exercise on a quarterly or annual basis, depending on the type of survey. These surveys have proved effective in spreading statistical awareness amongst the private sector.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Mahmood Ebraheem Al Mahmood, CEO and Chairman, ADS Holding

# Global ambitions

## OBG talks to Mahmood Ebraheem Al Mahmood, CEO and Chairman, ADS Holding

**How would you characterise Abu Dhabi's position in the global trading market?**

**AL MAHMOOD:** Abu Dhabi is well-suited as a global player in the field of trading and capital markets and is known as a low-profile and discreet investor – one of the main factors that has contributed to its success. There are a number of local sovereign wealth funds and other private institutional investors that are critical to financial institutions located in the emirate, and these are best served on the ground.

Being in close proximity to these institutional investors is interesting and healthy for the private sector, Abu Dhabi has been on the buy side of the market for a long time, so the level of sophistication and professionalism of these institutions is very high. In order to provide the required level of service, local companies must be of a certain calibre in terms of technology, human capital and capitalisation. This forces companies to operate as global players from their inception. Additionally, any company that starts trading operations in the emirate will benefit from these institutional investors. Furthermore, we see the sell side of the market evolving among local institutions, and this will further increase efficiencies and force service providers to be more competitive and transparent in their offerings.

**What effect has the global financial crisis had on the profile of commodities as investments?**

**AL MAHMOOD:** Investors in the region have historically had exposure to real estate and private equity, but very little exposure to fixed income, currencies and commodities. After the economic decline started in 2008, regional investors began to diversify their investments and allocate some of their funds to commodities. Whether this is physical commodities futures or options, the requirement and demand is present. Developing a diversified portfolio is a better long-term investment strategy. We also see diversification in terms of investment instruments along with an increasing demand for locally based asset managers, so the requirements are evolving, as in any other market. With the wide availability of information on the internet and other resources, investors are learning very quickly.

**How does the private sector help diversification?**

**AL MAHMOOD:** Like other economies around the world, Abu Dhabi is evolving into a mature stage. In all successful economies, the private sector is involved and playing an important role. Within the emirate, the private sector is driven by success and forms a key part of Vision 2030. Recently we have seen private companies diversify their client base rather than rely on one type of client. This will enhance their operations and returns over time. In today's environment, the private sector must be lean and efficient to operate in the international arena and stay ahead of the curve. Abu Dhabi's private sector is healthy and strong enough to compete in many industries globally.

**To what extent will local financial institutions become market makers in the future?**

**AL MAHMOOD:** It is definitely possible for firms within Abu Dhabi to be global market makers in the future. In short, whoever has the daylight has the market, and this is true throughout the world. Abu Dhabi is becoming one of these destinations.

We are at the point where our market is trying to make the transition from a frontier to an emerging market. Once this classification is achieved, the UAE and Abu Dhabi will appeal to more institutional investors and individuals. Consequently, these investors will be served from within the local market, not only from abroad.

I expect to see more companies coming to Abu Dhabi in order to better serve their clientele. Currently, the local equities market is well served but there remains plenty of room in the foreign exchange market, especially with regard to international players.

The emirate could benefit from a new sale to refresh its benchmarks

# Selling debt

## State-owned enterprises regularly issue bonds

The government's strong fiscal balance means Abu Dhabi has only needed to issue a limited number of sovereign bonds. When the emirate has sold government securities at all, it has mainly been for the purpose of establishing a yield curve for the private sector.

While the government may have only rarely tapped international capital markets, a few 100% state-owned enterprises (SOEs) – including the Tourism Development and Investment Company (TDIC), Mubadala Development Company and International Petroleum Investment Company (IPIC) – have floated debt in recent years and are likely to continue to do so. In the past these entities acted largely independently when it came to issuing bonds, but recently the Debt Management Office (DMO) – an organisation in Abu Dhabi's Department of Finance (DoF) established in 2009 – has taken on the task of monitoring the debt issued by major issuers and providing a forum to coordinate issuance.

**SOVEREIGN DEBT:** Abu Dhabi's government has issued just three bonds since the launch of its first sovereign bond in 2007, a five-year, $1bn note that matured in August 2012. It then turned to the markets in April 2009, issuing five-year and 10-year bonds, each with a face value of $1.5bn. Because Abu Dhabi regularly runs fiscal surpluses, the government does not need to issue this debt. The point of these sales is to build a yield curve – the relationship between the yield, or interest rate, and the length of the bond – that can be used for pricing private sector debt issuances. Without sovereign debt as a benchmark, it can be difficult for the market to determine interest rates for other bonds.

Given that the last government bond was issued in April 2009, Abu Dhabi could benefit from a new sale to refresh its benchmarks in the debt marketplace. As Saeed Almazrouei, the director at the DMO, told OBG in May 2012, the government plans to sell additional bonds to build a better yield curve, but he added that no firm date has been set. "We will issue again, but there is nothing imminent," he said. If Abu Dhabi were to sell more debt, it would almost certainly be attractive for investors looking for a low-risk place to park their funds, particularly if the global economy continues to experience the instability that characterised 2011 and the first half of 2012. In the summer of 2011, the yields on Abu Dhabi's government bonds hit historic lows, as global investors moved out of stocks in response to falling prices and into assets perceived to be safer. As of August 2011 Abu Dhabi's 10-year bond was yielding about 3.2%, down from 4.8% six months earlier.

However, investors are well aware that Abu Dhabi relies heavily on its oil revenues, and to the extent that these sales are in any way imperilled, the markets will respond. In early 2012 the emirate's government bond yields rose in response to Iran's comments about disrupting traffic through the Strait of Hormuz. Similarly, in January Abu Dhabi's credit default swap spreads – an indication of the likelihood that the government will not be able to repay its debt – rose to their highest level in two years. However, as Fitch Ratings pointed out in March 2012, compared to other GCC oil producers, Abu Dhabi would be better insulated from a possible closure of the international shipping lane than its neighbours, with the Habshan-Fujairah oil pipeline now fully operational. This pipeline, which can transport 1.5m barrels per day, delivers oil over land to the Gulf of Oman, bypassing the strait. Notably, Fitch added that it would not change the rating of Abu Dhabi's sovereign debt, suggesting that any risk would be minimal. Indeed, in the wake of Iran's rhetoric, neither Standard & Poor's nor Moody's, the other two main ratings agencies, modified their ratings for Abu Dhabi's long-term debt, which currently stand at AA and Aa2, respectively. In fact, Abu Dhabi continues to enjoy one of the highest sovereign credit ratings in the GCC region.

**STAKEHOLDER RELATIONS:** To the extent that the market registers any concerns regarding the risks faced by Abu Dhabi's economy – whether induced by Iran or otherwise – it is the responsibility of the DMO to manage relations with key stakeholders, including ratings agencies and bondholders. This is accomplished in part

When the emirate has sold government securities, it has mainly done so for the purpose of establishing a yield curve for the private sector

The Debt Management Office is actively involved in the debt issuance activities of the state-owned enterprises (SOEs). Public debt sales of these entities have far exceeded those of the government, with SOEs turning to investors to meet their financing requirements

by annual non-deal road shows that the office carries out in the US, Europe and elsewhere. At these events DMO representatives meet with current and potential bondholders, providing updated data and answering any questions that they might have. According to Almazrouei, investors often inquire about the emirate's economic diversification plans, the fiscal balance, inflation, debt holdings by the government and the SOEs, the stability of the banking system, and the performance of the Abu Dhabi Investment Authority, the emirate's largest sovereign wealth fund. Investors have also been concerned about the Arab Spring, although Abu Dhabi has relatively low unemployment and ranks well on corruption and human capital indices published by international organisations such as the World Bank and IMF. Notably, the UAE has generally been the recipient of money inflows in the wake of political instability in other Arab countries, strongly suggesting that the UAE is perceived to be relatively stable.

**OVERSIGHT:** The DMO is also actively involved in the debt issuance activities of the SOEs. It is important to note first that the public debt sales of these entities have far exceeded those of the government, with SOEs turning to investors to meet their financing requirements. As of early 2012 Mubadala had outstanding bonds with a face value of $3.25bn, while this figure stood at $10.5bn for IPIC and $2bn for TDIC. Since the establishment of the DMO, the government has increased its oversight of these bond issuances. In this respect, the DMO has two primary responsibilities. The first is to manage risk, and twice a year officials from the office meet with each SOE to review their debt liabilities, evaluating currency, interest rate and maturity risks. The second is coordination, in terms of timing and content. The government would like to avoid a scenario in which all of the SOEs are tapping capital markets at the same time. It would also like to ensure that, at least for broad macroeconomic indicators, the SOEs are providing investors with the same data to avoid confusion.

However, the actual business decision of whether to issue bonds is in the hands of the SOE, not the DMO. This is an important distinction, as delineating the precise role and responsibilities of the SOEs and the government regarding these bonds has created confusion in the past, notably in 2010 in the wake of major debt troubles at Dubai World, a conglomerate linked to the government of Dubai. While the economy in Abu Dhabi was and still is quite different from that of its northern neighbour, markets were more generally rattled by a perceived lack of government support for SOEs in the UAE, and, in response, Moody's downgraded the debt ratings of Mubadala and IPIC (both of which went down one notch to Aa3) and TDIC (down two notches to A1).

The government of Abu Dhabi reacted quickly to this move, however, with the DoF issuing a statement reaffirming its support for its SOEs as follows: "TDIC, Mubadala, TAQA and IPIC are all 100% government-owned and play a crucial role in the government's strategy for diversifying the economy. The government has a strong fiscal position and reserves that give it all the capacity needed to meet its commitments to these companies from its own resources."

The government stopped short of issuing an explicit guarantee, but the long-term financial impact of doing so may not have been significant. While it is difficult to gauge with precision what would have happened had the state explicitly backed the debt of its SOEs, these companies have continued to issue debt on the markets since that time, and without any significant difficulty, despite broad global economic challenges and regional instability. For example, Mubadala issued $1.5bn in bonds in April 2011, while IPIC twice tapped international markets in the same year, including a $3.75bn issuance in October.

**CAUTION:** Nevertheless, there is a sense that Abu Dhabi's SOEs are moving more cautiously at present, and are focusing more on deleveraging than on borrowing, as would be consistent with the government's focus on fiscal consolidation. The DMO's efforts to monitor and coordinate debt issuances will also likely reduce any financial risk associated with SOEs, which play an important role in diversifying the economy.

The UAE was the second-most-charitable country in the GCC in 2011

# The art of giving

## Charitable organisations are providing assistance at home and abroad

While the government plays a key role in supporting residents in need, several charitable organisations are also part of the landscape of the emirate and the larger UAE. Some of these groups are explicitly focused on domestic issues, while others look further afield and financially support development projects abroad.

**DONATIONS UP:** According to the World Giving Index 2011, a report compiled by Charities Aid Foundation (CAF), the UAE was the 47th-most-charitable country in the world that year, and second behind only Qatar in the GCC region. The CAF relied on information collected by polling company Gallup, taking into consideration the answers to three questions: within the last month, did you donate money to a charity, volunteer time at an organisation or help a stranger? The poll results showed that 45%, 12% and 54% of respondents in the UAE answered yes to these questions, respectively, yielding an aggregate score of 37%. This was an improvement of one percentage point over the prior year, and overall, the UAE moved up four spots in the ranking from 50 to 47 between 2010 and 2011.

The financial downturn of 2008-09 seemingly put a damper on donations on a global level, with the CAF report showing that fewer individuals in 2011 were able to afford monetary donations than in the prior year. However, this was not true in the UAE, where the percentage of people giving money rose from 40% in 2010 to 45% in 2011. This statistic is consistent with the observations of Hamdan Al Mazrouei, the chairman of the General Authority of Islamic Affairs and Endowments (GAIAE), who told OBG "We have not noticed a decrease in donations to the foundation, despite the economic crisis. Abu Dhabi was quite resilient during this time, so donations continue to grow year on year."

**RELIGIOUS ENDOWMENTS:** The GAIAE was established in 2006, following a decree by Sheikh Khalifa bin Zayed Al Nahyan, the president of the UAE and ruler of Abu Dhabi. A leading institution in promoting social and religious awareness, the GAIAE has several areas of responsibility, including building and maintaining mosques and Quran memorisation centres, organising hajj and umrah affairs, and investing *awqaf* (religious endowments) for the good of society.

Awqaf are gifts of money, real estate or other non-perishable property that can be used for specified charitable purposes. Once a *waqf* (the singular of awqaf) is created, it can never be donated as a gift, inherited or sold, and disbursement of its returns must be made according to the wishes of the donor. The role of the GAIAE is to manage the affairs of awqaf, register their assets and develop their investments. The organisation has also developed public awareness campaigns to promote the practice of waqf. The GAIAE holds a large number of waqf properties in Abu Dhabi and across the larger UAE. Proceeds from these investments are used to finance religious, health and education projects, as well as support the poor and provide community services. Since 2009, revenues from GAIAE's waqf projects have more than doubled, according to the public statements by officials from the organisation.

**ONGOING DEVELOPMENTS:** The GAIAE currently has nine major waqf projects being carried out throughout the UAE, with a total combined value of over $128m. The largest of these is the Sheikh Zayed bin Sultan Al Nahyan Waqf Building located in Abu Dhabi's Al Khalidiya area. The foundation funds humanitarian activities both domestically and abroad, with permanent programmes providing financial support to students, those in need of medical help, Muslims who would like to perform the hajj as well as a large number of social initiatives. With the waqf's main building currently under construction, the cost of the development stands at Dh324m ($88m). "There is still healthy demand rental residential and commercial real estate," according to Al Mazrouei. "Even as new developments and buildings come on-line, we see steady demand for existing properties. Some clients may request a reduction in price, but generally speaking demand is strong." Other projects range from shopping malls in Al Ain to commercial buildings in Fujairah.

According to the World Giving Index 2011, a report compiled by the Charities Aid Foundation (CAF), the UAE was the 47th most charitable country in the world and second behind only Qatar in the GCC region

Mohamed Thani Murshed Al Rumaithi, Chairman, ADCCI

# Emerging fast

## Mohamed Thani Murshed Al Rumaithi, Chairman, Abu Dhabi Chamber of Commerce & Industry (ADCCI), on doing business in the emirate

Abu Dhabi enjoys a prime position in the region as a leading centre of business. Many of the world's largest companies have established themselves in the emirate, having been attracted by its healthy business environment. Abu Dhabi offers companies a range of investment opportunities, while creating the right business and legislative environment for investors to grow their respective enterprises.

ADCCI has been a very important component when it comes to the UAE capital's strategic plans to position itself as the leading destination for major regional and international companies.

The emirate has managed to attract a number of international corporations that are critical to the realisation of Abu Dhabi Economic Vision 2030. This strategy establishes a common framework for aligning all policies and plans that contribute to the ongoing development of the emirate's economy, while fully engaging the private sector in its implementation.

According to economic studies, Abu Dhabi continues to achieve good rates of economic growth; the average GDP growth rate of the emirate exceeded 14% from 2001 to 2009. The emirate was successfully able to attract foreign investments reaching Dh100bn ($27.22bn) between 2003 and 2010.

Abu Dhabi is also focusing on developing key sectors, with potential for growth looking set to reach a targeted annual growth rate of 7.5%. This in turn will help the emirate diversify the local economy. The most prominent sectors are minerals, aviation, defence, pharmaceuticals, biotechnology, tourism, health care, transportation, trade, logistics, media, financial services and telecommunications.

The chamber supports the government's efforts of promoting Abu Dhabi as an economic and industrial hub in the region. ADCCI is working with key partners in Abu Dhabi to boost foreign investments and promote services and facilities through its participation in Arab, regional and international exhibitions that are targeted towards business and investment.

During the course of 2012, ADCCI doubled its efforts to support Abu Dhabi's economy to help position the emirate as a leading business destination. This vision fits perfectly with the aspirations of the private sector to play a greater role in the current economic boom. Our focus going forward will be to continue to develop policies and strategies that will help ADCCI retain its standing as a key player when it comes to driving new development within Abu Dhabi.

The partnership between private and public sectors is a fundamental part of the Economic Vision 2030. In fact, the long-term strategy is the result of a concerted effort among a number of public sector and joint public-private sector entities.

Abu Dhabi is fast emerging as a regional business centre and gateway for global players today, driven by a competitive business environment that attracts investment from all over the world. It is in this context that ADCCI is spearheading the participation of business enterprises in the emirate's economic growth and helping them become a part of its success story.

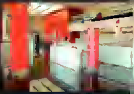
In 2012 a number of UAE nationals graduated as part of the Abu Dhabi International Centre for Organisational Excellence (ADICOE), a subsidiary of ADCCI. ADICOE aims to strengthen both private and public sector organisations' ability to compete, by building strong human capital, and at the same time contributing towards the process of emiratisation.

ADCCI forecasts show that Abu Dhabi will experience growth of 4.5% in 2012. This rate is being achieved despite the fact that the global financial crisis is still affecting many countries.

ADCCI has come a long way; its role does not just include management work and providing licences. Much of its efforts go towards supporting investors with information on investment opportunities and also providing them with counselling and advice based on various economic studies, making the chamber an essential component when it comes to helping fulfil the economic vision held by the emirate's leaders.

# Banking

Despite challenges banks maintain profitability
Growth in lending expected during 2012
A look at five of the emirate's banking heavyweights
Regulatory reforms boost confidence and security



The central bank has introduced major regulatory changes in 2011/12

# Managing growth

## Strategic development and careful regulation allow the sector to remain strong

Operating within the largest banking sector in the GCC, Abu Dhabi's banks have thrived, and today the UAE capital is home to some of the most successful lenders in the country. In 2011 they demonstrated continued profitability despite the challenges presented by regional unrest and global economic turbulence. The possibility of exogenous shocks remains in 2012, while on the domestic front the sector is adjusting to new regulations, addressing some of the potential risks that the recent credit crunch exposed.

However, to date, Abu Dhabi's lenders have shown an ability to adjust their strategies in response to the altered economic environment, and the result is a leaner, more efficient banking sector that is learning to diversify its sources of income and remain profitable in an increasingly competitive market.

**HISTORY:** The modern era of banking in Abu Dhabi began with the establishment of the UAE Currency Board in 1973, the primary task of which was to oversee the introduction of the UAE dirham. The new national currency replaced a system in which the Bahraini dinar and the Qatar/Dubai riyal were used for cash transactions. After its successful circulation, the board reverted to its oversight role working with the International Monetary Fund (IMF) to produce the annual reports and bi-annual bulletins that tracked the progress of the nascent banking sector. By the end of the decade, the economy of Abu Dhabi was heating up on the back of an expanding hydrocarbons industry and the emirate's banking sector entered a new phase of development.

The promulgation of Union Law No.10 of 1980 converted the UAE Currency Board into the Central Bank of the UAE, granting it an array of powers, including the formulation of monetary, credit and banking policies. Since its inception, the central bank has overseen the emergence of a banking sector that has played an integral part in the economic development of the nation. In the little over three decades between January 1980 and January 2012, the activities of the central bank and the institutions it oversees have expanded exponentially: cash in circulation has grown from Dh2.1bn ($571.6m) to Dh42.6bn ($11.6bn), credit facilities extended to the nation's private sector rose from Dh25.2bn ($6.9bn) to Dh816.5bn ($222.3bn), while monetary deposits increased from Dh5.2bn ($1.4bn) to Dh229.4bn ($62.4bn). The UAE's banks, and Abu Dhabi's in particular, have demonstrated their robustness in the face of the global economic crisis, while the central bank has moved swiftly to address the potential risks that the new economic environment has exposed. Throughout these political and economic vicissitudes, the banking sector has continued to grow in both depth and complexity to assume the regionally significant role it enjoys today.

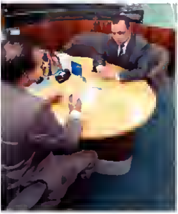
There are 23 domestic banks operating 799 branches across the UAE; they share the market with six GCC banks and 22 foreign banks as well as 110 foreign banks with representative offices.

**MARKET STRUCTURE:** Abu Dhabi's banking sector sits within a wider UAE market of financial institutions operating across the seven emirates on a border-free basis. They compete for business in a competitive market where domestic giants rub shoulders with foreign institutions that have established a presence in the UAE. "It is a very crowded market. On the Herfindahl-Hirschman (HH) index of market concentration, the UAE is less than 0.2. And although we have a big four or five, there is no dominant player," Arup Mukhopadhyay, executive vice-president and head of consumer banking at Abu Dhabi Commercial Bank (ADCB), told OBG. A 2012 report by Abu Dhabi Islamic Bank (ADIB) established that the UAE banking sector, with 51 banks and more than 840 branches for a population of 8m, is the most competitive in the GCC – a fact reflected in a net interest margin or the spread between what banks pay on deposits and what they charge for credit, which is the lowest amongst the Gulf states. As of June 2012, 23 domestic banks operated 799 branches throughout the UAE, according to the central bank. They share the market with six GCC banks, which operate a branch each, and 22 foreign banks that maintain 82 branches. Additionally, as of December 2011, 110 foreign banks have established representative offices in the country, 42 of which are located in Abu Dhabi.

As one of the UAE's two banking centres, Abu Dhabi is home to some of the sizeable domestic players that play a leading role in the development of the economy through their lending and investment activities (see analysis). National Bank of Abu Dhabi (NBAD) is the second-largest bank in the UAE, and runs the largest lending book of the Abu Dhabi-based institutions – valued at Dh164bn ($45bn) in March 2012. An Abu Dhabi government interest of over 70% has helped it to maintain its position at the centre of the emirate's economy. The government also retains an interest of 64.8% in Abu Dhabi's second-largest lender, ADCB. The largest privately owned bank in the emirate is First Gulf Bank (FGB), although the sizeable stake the ruling family holds enhances its ties to the state. Union National Bank (UNB) is the fourth-largest bank and the only one in the UAE market jointly owned by the governments of Abu Dhabi and Dubai. Abu Dhabi Islamic Bank, meanwhile, is the fifth-largest bank in the emirate, as well as its largest sharia-compliant lender (or, in Islamic terms, financer). Abu Dhabi's top-five domestic banks offer sharia-compliant financing either through subsidiaries or dedicated Islamic windows.

**REGULATION & REFORM:** The responsibility of ensuring that expansion is carried out in a prudent and sustainable manner falls to the Central Bank of the UAE. Since the onset of the global economic crisis, the central bank has responded to the altered economic landscape in two discernible phases. In the first, it moved to secure the sector by setting up a Dh50bn ($13.6bn) short-term liquidity support facility that was followed by a similarly sized liquidity injection provided by the Ministry of Finance. During this period the government of Abu Dhabi provided a further Dh16bn ($4.4bn) injection to five Abu Dhabi-based banks, significantly strengthening their capital base. Having given the banks the opportunity to strengthen their balance sheets, the central bank has more recently commenced the second phase of its response, which aims to address the potential systemic risks that the economic crisis exposed.

Consequently, Abu Dhabi's banks are adjusting to a number of key regulatory changes, the first of which came in late 2010 with the Regulations for Classification of Loans and Determining their Provisions, better known as the Provisioning Circular. The new regulation establishes a framework by which banks are to evaluate their loans and advances portfolio to better reflect their asset quality, as well as to introduce consistent, prudent credit risk management policies. The new loan definitions range from "normal", "watch-list", "sub standard", "doubtful" and "loss", and their adoption across the sector has brought a heightened degree of clarity to portfolio management. An even more comprehensive regulatory change soon followed, in the form of the Regulations No.29/2011 Regarding Bank Loans & Other Services Offered to Individual Customers, published in February 2011 and implemented in May 2011. The regulations are applicable to individual consumer retail banking practices, and have the dual purpose of controlling lending activity and the level of fees that might be charged for it. A new lending cap of 20 times



There are 23 domestic banks operating 193 branches in the UAE

salary has replaced a previous fixed limit on expatriates of Dh250,000 ($68,050), and has been welcomed for the heightened flexibility it has brought to the market. The regulations also set out a standard formula for the calculation of interest on a loan and establish that the combined monthly installations for all loans, including overdrafts and credit cards, must not exceed 50% of an individual's gross salary. The caps on fees and commissions that the regulations have levelled represent the most significant challenge to the industry. The reduced revenue from fees and commissions during 2011 has led to a drop-off in non-interest income for all five of Abu Dhabi's top banks (see analysis).

A third significant regulatory change was introduced by the central bank in April 2012, Notice No. 209 of 2012 is an amendment of a central bank circular from 1993 concerning the monitoring of large exposure limits. The revised regulation changes the nature of banks' concentration of risk levels, removing a previous lending limit to any individual borrower of 7% of capital base and replacing it with a new matrix that encompasses government-related entities (GREs) and local governments, although not credit extended to the Federal government. The move has been broadly welcomed as a prudent response to the potential concentration of risk within the sector. "It's a straightforward concept. The central bank is trying to prevent excessive concentration of risk whilst acknowledging the general strength of GREs. GREs in Abu Dhabi are solid, but even with these

Three significant regulatory changes have been introduced by the central bank over the past few years. The first established more prudent credit risk management policies, the second controls lending activity and the level of fees that might be charged for it, while the third changes the nature of banks' concentration of risk levels

**Performance of top five local banks, 2011** (%)

| | Net profit | Net interest income | Loan growth | Deposit growth |
|---|---|---|---|---|
| National Bank of Abu Dhabi | 0.70 | 10.50 | 17.0 | 23.30 |
| Abu Dhabi Commercial Bank | 594.20 | 27.30 | 1.0 | 3.50 |
| First Gulf Bank | 8.40 | 19.30 | 5.50 | 4.80 |
| Union National Bank | 10.90 | 22.50 | 2.56 | 4.10 |
| Abu Dhabi Islamic Bank | 12.80 | N/A | 3.20 | -2.40 |
| Average | 14.50 | 7.50 | 5.66 | 5.66 |

SOURCE: Banks' financial statements

comes a point where you get over concentrated. The approach seeks to prevent excessive concentration to any counterparty, which is good, prudential regulation," Colin Fraser, the executive vice-president and group head of wholesale banking at ADCB, told OBG.

**BASEL II & III:** In addition to the ongoing process of regulatory reform originating from within the UAE's borders, Abu Dhabi-based banks are also engaging with the broad current of international reform the Basel process represents. The market's reaction to the provisions of Basel II and III is partly bank-led and partly driven by the regulator, while its more recent actions concerning retail lending and risk concentration chime with the strategic priorities that the Basel process establishes. The more particular capital structures established by Basel do not pose a challenge to Abu Dhabi's banks, with average Tier 1 capital ratio standing at 16.3% across the UAE in December 2011, well in excess of Basel's 7% requirement. Moreover, the bulk of this Tier 1 might be described as "classical" capital – equity and retained earnings – with a relatively small component of innovative funding.

In November 2009 the central bank implemented the standardised approach to capital adequacy standards, which has now been adopted by all banks within the UAE. However, both the central bank and Abu Dhabi's larger lenders are turning their attention to Basel III, and in particular the challenges associated with its more onerous liquidity requirements. In July 2012, the central bank issued circular No. 30/2012 to "ensure that liquidity risk are well managed at banks operating in the UAE and are in line with the Basel Committee for Banking Supervision recommendations and international best practices." Starting in January 2013 the central bank will require local banks to comply with four ratios (two of which are interim) until the Basel III Liquidity Coverage Ratio and the Net Stable Funding Ratio come into effect in January 2015 and January 2018, respectively.

**PERFORMANCE:** The central bank's light yet prudent regulatory touch has been a contributing factor to the rapid expansion of the banking sector in recent years. In 2011 the total assets of banks operating in the UAE (net of provisions for bad and doubtful loans and interest in suspense) increased by 3.5% to reach Dh1.66trn ($452.4bn), making it the largest banking sector in the GCC according to central bank data – a position it has held since 2006. As the UAE banking sector continues to expand, it is the Abu Dhabi-based institutions that have been making the running over recent years. Less affected than Dubai by the global economic downturn, the emirate's banks have succeeded in increasing their share of the national market. "This trend has been established for some time. Data from banks' financial statements show that the assets of Abu Dhabi's publicly listed banks are getting closer to accounting for half of the UAE banking system. In 2008 they accounted for around 34%," Giyas Gökkent, the group chief economist at NBAD, told OBG.

This expansion comes within the context of a gradual recovery from the effects of the global economic crisis. In 2009 the UAE banking sector's net profit fell year-on-year (y-o-y) by 20.6%, principally as a result of increased allocations for loan loss provisions. Profit recovery began almost immediately: the net earnings of the 12 national banks that released their semi-annual results in the summer of 2010 showed an aggregate expansion of 2.2%, but elevated provisioning levels were a downward force on bottom-line growth. In 2012, the question of where Abu Dhabi's banks lie in the non-performing loan (NPL) cycle remains moot. Aggregate figures for the UAE sector show that NPL formation has slowed, growing by 4% in 2011, a trend that has been assisted by the de-recognition of exposures that have been successfully restructured. There is a growing sentiment within the Abu Dhabi banking community that the worst of the NPL challenge is behind the sector. "I think we are in the middle of the NPL cycle, barring another catastrophe. For us it peaked in the third quarter of 2011, and we don't believe there will be anything other than sideways movement. We have reached a plateau in which we are not seeing new entrants into the non-performing category, just a deterioration of existing cases. We have worked with customers that have recovered, but it will take a while. I think we are probably two years from recovery," Andrew Moir, global head of strategy and finance at ADIB, said.

Banks' provisioning against bad debt, meanwhile, presents a muddied picture as a result of their need to meet a 1.5% collective provisions target set by the central bank with a deadline of 2014. While some of Abu Dhabi's largest banks showed a decline in provisioning activity over 2011, the expansion of provisioning of up to 24% in other cases has been attributed to efforts to meet the new target on schedule.

Against this backdrop of loan-book cleansing, Abu Dhabi's banks have maintained their profitability. An OBG analysis of the five largest lenders reveals that all posted a growth in net profit for 2011, at an average of 14.5%, although this figure is distorted by the 694.2% growth shown by ADCB as the result of a one-off asset sale. Net interest income for the four largest banks in the capital (excluding the sharia-compliant ADIB) averaged

The UAE banking sector continues to expand, with total assets of banks operating in the UAE (net of provisions for bad and doubtful loans and interest in suspense) increasing by 3.5% to $452.4bn in 2011. This makes it the largest banking sector in the GCC region

**UAE banks aggreg. balance sheet, 2011-12 (Dh bn)**

| | | 2011 | June 2012 |
|---|---|---|---|
| Assets | Cash & deposits with CB | 166.63 | 177.50 |
| | Due from resident banks | 80.38 | 80.46 |
| | Foreign assets | 248.88 | 275.04 |
| | Domestic credit & investments | 1086.10 | 1115.09 |
| | Total assets | 1555.22 | 1735.24 |
| Liabilities | Monetary deposits | 222.51 | 240.94 |
| | Quasi-monetary deposits | 561.66 | 542.84 |
| | Foreign liabilities | 289.81 | 319.74 |
| | Gov't deposits | 174.81 | 196.57 |
| | Gov't lending funds | 0.01 | 0.01 |
| | Capital & reserves | 280.79 | 289.05 |
| | Due to CB | 1.48 | 1.47 |
| | Due to resident banks | 63.54 | 67.55 |
| | Unclassified liabilities | 70.61 | 77.91 |

SOURCE: Central bank report June 2012

AMBITION.
WITHOUT IT, THIS WOULD ALL STILL BE A DESERT.
LONG LIVE AMBITION
ADCB

7.5% for the year, with ADCB's 27.3% leading the field. The "big five" also managed to build and expand their lending activity at an average rate of 6.66% over the year, with NBAD posting the biggest gain at 17%.

**MARKET TRENDS:** Despite the expansion in lending activity exhibited by Abu Dhabi's five largest banks, they form part of a sector-wide trend of slow loan growth in the wake of the global economic crisis. The 30% y-o-y lending growth of 2008 gave way to a 2.4% increase in the extension of credit in 2009, and lending activity has remained muted since. The effects of the subdued growth have also been felt in the banks' deposit maturity profiles. Research by Global Investment House shows that while 24% of UAE bank deposits had maturities of over one year in 2008 this had contracted to 7% by 2011. Beyond the obvious explanation of depositors being reluctant to lock in their capital for long periods at low interest rates, one of the factors adduced for this "fat tailing" of banks' deposits is a move by lenders to shed higher-cost, longer-term deposits as a reaction to their low loans distribution. The slowdown in NPL growth seen in 2011 has thus come as welcome news to the UAE banking sector, interpreted by many as the first sign of a market rationalisation that will allow for sustainable loan growth.

**FUTURE GROWTH:** Even during the recent era of rising NPLs and loan book restructuring, Abu Dhabi's banks fared better than their counterparts elsewhere in the UAE, showing an NPL ratio on Tier 1 capital of 6.8% in 2011 compared to the 10.6% average of banks based in Dubai, according to the International Monetary Fund's (IMF) 2012 Article IV Consultation document. Banks operating from the capital also continue to benefit from government spending on the ambitious Abu Dhabi Economic Vision 2030, the blueprint for the emirate's economic development, as well as the robust rate of deposit growth that the local sector has recently displayed. Nevertheless, while big-ticket corporate lending continues to underpin the sector's expansion, the post-credit-crunch economic environment has encouraged banks to engage with as much of the economy as possible in a bid to secure income. As a result, small and medium-sized enterprise (SME) and retail lending are playing a more prominent part in the portfolios of Abu Dhabi's banks. "While we believe that government projects are more secure than in the private sector, we cannot close our eyes to private enterprise. There is a shift in focus whereby SMEs have been made a part of the strategic equation for future progress in the UAE. All banks are focusing attention to this and if they are not, they are losing market share," Mohammad Nasr Abdeen, CEO of UNB, told OBG.

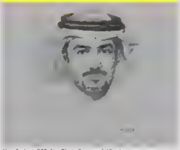
In the retail segment, salary increases for federal government employees implemented in late 2011 are expected to play a part in what leading Middle East investment bank EFG Hermes anticipates will be a 5% growth in lending in 2012. According to research conducted by Gulf Investment House, credit extended to the retail sector by Abu Dhabi's five largest lenders varies from 17% of total lending (NBAD) to 41% (FGB). While the introduction of the new regulations concerning retail lending has impaired non-interest income originating from this segment, the prospect of a federal credit bureau with a legal mandate to collect and provide information from all of the UAE's banks has the potential to considerably widen the retail lending space.

In 2011 total assets of banks operating in the UAE increased by 3.5% to $452.1 bn

Non-performing loan (NPL) growth slowed down during 2011, when the emirate showed an NPL ratio on Tier 1 capital of 6.8%. This compares to an average of 10.6% for banks based in Dubai.

In the meantime, technology represents another means by which banks can bolster revenue streams whilst providing enhanced services. Larger lenders are introducing new technology platforms in areas such as transaction and trade banking. ADCB's ProCash and ProTrade, for example, bring automation and reduced operating costs to clients using platforms comparable to those of the largest multinational lenders, and therefore represent a significant step forward by the local sector. Using such technology to build relationships with customers and diversify sources of interest and non-interest income will play an increasingly important part in Abu Dhabi's competitive banking sector.

**OUTLOOK:** Fiscal prudence and hydrocarbons wealth combine in Abu Dhabi to make it one of the most robust economies in the region, and the recent performance of the emirate's banks compared to those in the rest of the UAE reflects this. The government's commitment to the sizeable infrastructural projects underpins the future growth of the sector. Still, the increasingly competitive nature of the domestic banking market will continue to drive the established trend of revenue diversification. An announcement in May 2012 that a new "twin peaks" regulatory model is to be introduced to the UAE promises to bring the biggest regulatory restructuring since the creation of the central bank. Under the current proposal, the central bank will continue to oversee the banking sector for a transition period of up to four years before handing over its conduct-of-business role to a new Financial Services Authority. The central bank will then retain its prudential role, taking a birds-eye view of financial oversight as well as formulating the country's monetary policy. Plans to introduce a new banking law intended to replace the 1980 Banking Law were also announced in 2012.


Ala'a Eraiqat, CEO, Abu Dhabi Commercial Bank

# Responsible lending

## OBG talks to Ala'a Eraiqat, CEO, Abu Dhabi Commercial Bank

**Why do you believe Abu Dhabi's banking sector was so resilient during the financial crisis, and how have lenders adjusted their activities since then?**

**ERAIQAT:** The financial world has changed dramatically over the past three years, and this has caused banks to reassess their business. We are part of the global economy, but knowing the strength of Abu Dhabi's market and recognising how much attention is being paid to economic planning, we were very optimistic. Additionally, as a result of the transparency of the government, it is easy to see the future direction of the emirate. The Economic Vision 2030 is real and being implemented. All projects that are happening today fit as building blocks into the vision, and banks are playing a key role in this facilitation. The government has done its part by articulating the vision and putting money and energy behind the plan, so it is imperative that local banks also support these efforts.

In response to the crisis, we made a decision to focus on what was in our realm of control. We have also had a clear strategy to concentrate on the core businesses of commercial and personal banking within the UAE. For example, our acquisition of the Royal Bank of Scotland's local retail banking portfolio and the divestment of our stake in Malaysia's RHB Capital.

Abu Dhabi is in a unique situation, the government has a stated vision for the next 17 years. It is important to adequately emphasise how important this is in terms of the business community's planning for the future.

**Bank deposits in the UAE are usually short-term, while there is growing demand for long-term project financing. What challenges are posed by this mismatch in maturity lengths?**

**ERAIQAT:** The tenor mismatch is one of the biggest challenges that UAE banks face, but this is something that the financial community has become accustomed to. There are certain tools being developed, such as bonds being issued by government-related entities, where we see huge demand from retail and institutional investors. This indicates that there is a need for more of these investment instruments. These products can also be used to raise funds from the local market to help fill the gap caused by the tenor mismatch. Local deposits will continue to be short term, but in the future we will employ a wider range of tools rather than simply encouraging longer term deposits.

**How would you characterise the credit rating environment, and how does it affect lending practices?**

**ERAIQAT:** Local banks have benefitted from large exposures and a large number of clients, helping them to observe portfolio trends and develop their own credit risk management tools. However, this is no substitute for a credit bureau, an independent credit bureau would help improve on these existing tools and reports. That being said, this has not stopped banks from lending on account of this gap in information, but they have been more selective, focused and qualitative.

Additionally, there are more mechanisms being developed to help borrowers collateralise against loans. Currently the only pledge that can be made is on vehicles and properties. In some developed markets, other assets can be collateralised and this is being discussed. Implementing such liquidity management tools will be a positive development for the cost of credit.

**How are local banks balancing their offerings between lending and savings products? How can savings be encouraged?**

**ERAIQAT:** All banks aspire to foster greater demand for savings products. Local demand is improving and this shift is taking place faster than in many other countries; the level of financial education in the younger generation is very high. I believe that this mindset can be partially attributed to the financial crisis. The biggest contributor to the financial crisis was overleveraging in households, so this will live in the minds and memories of future generations. Hopefully, this will act as a solid foundation for responsible financial behaviour.

Many Abu Dhabi-based lenders have expanded internationally

# Top five

## Sector heavyweights reach new highs

Five major financial institutions dominate the Abu Dhabi banking sector, which has expanded significantly over the recent decades.

**NATIONAL BANK OF ABU DHABI (NBAD):** With 15% of total sector assets in 2011, according to Kuwait-based Global Investment House, NBAD is the second-largest bank in the country and the largest of the Abu Dhabi-based lenders.

Majority-owned by one of Abu Dhabi's sovereign wealth funds, the Abu Dhabi Investment Council (ADIC), its status as a quasi-government institution places it at the centre of the emirate's economic development, and has enabled it to grow the largest lending book of all Abu Dhabi's banks – at Dh164bn ($45bn) in 2011, according to its annual statement. The sizeable government interest in the bank has also helped it to maintain one of the strongest credit profiles in the region, with long-term credit ratings of "Aa3" from Moody's, "A+" from Standard & Poor's and "AA-" from Fitch – all with "stable" outlooks.

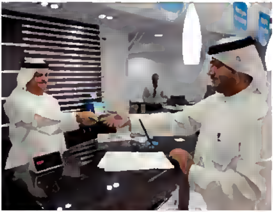
As a universal bank it offers a full range of conventional banking and financial products, as well as operating a sharia-compliant division by means of an Islamic window – Abu Dhabi National Islamic Finance. It also has the largest international operations among the local banks, with a presence in the UK and France dating back to the 1970s, and more recently established operations in Switzerland, the US and Hong Kong. Closer to home, NBAD has 28 branches in Egypt and operates representative offices in Libya, Sudan, Jordan, Kuwait, Bahrain and Oman. In 2010, the bank became the first in the UAE to break through the $1bn net profit threshold, which it followed up in 2011 with a robust performance despite the challenging economic environment. Net interest income grew 11% year-on-year (y-o-y), although lower investment income and higher provisions taken during 2011 slightly impaired top-line growth, resulting in a 1% expansion of net profit to Dh3.7bn ($1bn). The bank's relatively low exposure to the retail segment, which accounts for around 16% of its lending book, also protected it from the changes in retail regulation that have affected other lenders, allowing it to grow its fee income by 8% y-o-y.

**ABU DHABI COMMERCIAL BANK (ADCB):** ADCB is the second-largest bank in the Abu Dhabi market, with an 11% claim on the total assets of the UAE banking sector. Like NBAD, the bank is linked to the state by the sizeable interest ADIC holds in it. This advantage is reflected in its historical weighting towards wholesale business and a robust credit profile: a long-term rating of "A1" from Moody's, "A" from Standard & Poor's and "A+" from Fitch.

In recent years ADCB has successfully expanded from its largely corporate base into the retail segment. In order to do so it has invested heavily in alternative channels, such as online banking, which have allowed it to establish itself as a major player in the retail space with 50 branches in the UAE. It has also entered the sharia-compliant segment through its wholly owned subsidiary, Meethaq. To date, ADCB's expansion strategy has been centred on organic growth within the UAE. It was, however, an early mover into the Indian market, establishing a branch in Mumbai in 1980 and Bangalore in 1996, both of which have successfully exploited the trade and investment connections between the UAE and its largest non-oil trading partner.

For 2011, ADCB reported a net profit of Dh3bn ($816.6m), a seven-fold increase (694%) on 2010, which was buoyed by a one-off gain due to the sale of its interest in Malaysia's RHB Bank. However, even excluding this accounting gain, net profits were three times higher than the previous year thanks to significant top-line growth and a decline in provisioning levels, which were reduced by 27% y-o-y.

While its sizeable retail activity means that its non-interest income was negatively affected by retail lending regulatory changes, this was mitigated by a net interest income gain of 27% y-o-y, which was



The local banking sector is dominated by five major lenders that enjoy high credit ratings

largely spread-driven, as lending activity grew relatively slowly over the course of 2011.

**FIRST GULF BANK (FGB):** With assets of Dh155.7bn ($43.5bn) as of March 2012, around 10% of the UAE total, FGB is the third-largest bank in Abu Dhabi and the largest privately owned lender. Established in 1978, the historically retail-focused lender had developed a universal set of services, encompassing consumer, corporate, treasury and investment, as well as the sharia-compliant products that it offers through its Islamic window, Siraj. It has also established a presence in the real estate finance segment through its property investment subsidiary, Mismak, and its Islamic mortgage company, Aseel. Although its sovereign links are more limited than some of its competitors, the sizeable stake in it held by Abu Dhabi's ruling family and its emergence from the global economic crisis with improved capitalisation levels have helped it retain a long-term rating of "A2" from Moody's, "A+" from Fitch and "A+" from Capital Intelligence. FGB's international expansion strategy has so far included the opening of offices in Libya, India, Singapore and Qatar, and it has established a new international business division to lead its continued efforts toward geographical diversification. For now, its foreign operations are active exclusively in the corporate space.

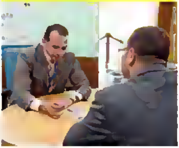
In 2011 FGB managed to grow its net profit by 8% to reach Dh3.7bn ($1bn). Net interest income rose by 19% y-o-y, driven by both loan growth (10%) and the more favourable spreads the bank achieved by establishing a lower-cost deposit base. Non-interest income, however, was impaired by the exposure to the new retail banking regulations, which led to an 18% decline in commission and fee income and eroded the top-line gains.

**UNION NATIONAL BANK (UNB):** Abu Dhabi's fourth-largest lender, UNB holds a 5% claim of total sector assets. Established in 1982 and headquartered in Abu Dhabi, UNB is the only bank in the UAE to be jointly owned by the governments of Abu Dhabi and Dubai. It operates one of the oldest brokerage firms in the UAE as a wholly-owned subsidiary, while its Al Wifaq Finance Company offers sharia-compliant financial, commercial and investing services to both organisations and individuals. As of the end of 2011, its domestic branch network runs to 56 units, through which it offers conventional retail and corporate products. Recent years have seen the bank extend its presence to Egypt, through the acquisition of the Alexandria Commercial and Maritime Bank (now Union National Bank Egypt). It has also opened a full branch in Doha's Qatar Financial Centre and a representative office in Shanghai, which made it the first Emirati bank to enter the Chinese market.

In July 2012 Capital Intelligence announced that it had maintained the bank's long-term credit rating of "A+" on the strength of its capital base and rising profitability, which reached Dh1.6bn ($435.5m) in 2011, representing a growth of 11% y-o-y. This expansion came largely as a result of robust growth in net interest income, which rose by 11% for the year, and mitigated the effects of a 26% drop in non-interest income, the result of the implementation of the new retail regulations in May 2011.

The bank also showed a significant jump in its provisioning, which rose as the bank took additional collective provisions in to meet the 1.5% capital-to-risk-weighted-assets ratio obligation.

**ABU DHABI ISLAMIC BANK (ADIB):** ADIB is one of the more prominent Islamic financial institutions in the Gulf region, the largest sharia-compliant financer in Abu Dhabi and the fifth-largest bank in the emirate's banking sector. Established in 1997 as a public joint stock company with a paid-up capital of Dh1bn ($272.2m), in 2010 it underwent a comprehensive rebranding, opened 14 new branches and installed a new management team that has since set about implementing a three-pillar strategy: to establish the bank as a top-tier lender in the UAE, to diversify and consolidate its businesses aligned to financial services, such as takaful and brokerage, and to export this model to the international arena. The bank's efforts have met with considerable success in a short space of time. In 2011 it was named as the number one bank in the UAE in customer service, it has expanded its branch network to 70 units and launched a range of new products that have found favour in the market. In 2011, ADIB showed 17.3% y-o-y growth to reach a net profit of Dh1.4bn ($381.1m), despite the impact of the new lending regulations on its fees and commissions income and a 9.4% increase in non-performing assets. The bank's conservative approach to non-performing asset recognition and provisioning has resulted in a healthy pre-collateral non-performing asset coverage ratio – a contributing factor to the robust long-term credit ratings it enjoys (as of July 2012) of "A2" from Moody's and "A+" from Fitch. Net customer financing, or lending, grew slightly in 2011, to Dh40.8bn ($11.1bn), up from the Dh40bn ($10.9bn) of 2010.



Personal loans grew by 2.8% during the first half of 2012

# A time for change

## Regulatory reforms make for greater efficiency and security

A number of significant changes to the regulatory framework governing Abu Dhabi's banking sector took place throughout 2011, as the central bank addressed potential market vulnerabilities revealed by the global credit crisis. Each reform carries implications for the emirate's banks, but none more so than the new regulations in retail lending activity applied in May 2011. While their implementation had an immediate effect on the balance sheets of the affected institutions, the long-term implications of the new regulatory regime are of more interest to most observers.

**NEW RULES:** Regulation No.29/2011 Regarding Bank Loans & Services Offered to Individual Customers, which came into effect on May 1, 2011, applies to conventional and Islamic banks and financial institutions engaged in retail lending activity. This regulation encompasses personal loans and overdraft facilities, motor and housing loans, credit cards and loans made to sole proprietorship companies secured by the salary of the owner or partners in the firm. While it pertains to new and existing loans, its provisions were not retroactively applied to fees, commissions and fines levied prior to the date of its implementation. Under the new regulatory regime, customers can borrow up to 20 times their salary, a flexible cap that runs across the customer base and replaces a previous Dh250,000 ($68,050) lending limit on personal loans to expatriates. Loan repayment instalments must not exceed a combined total of 50% of an individual's gross salary at any time, meaning that banks must take into account a customer's other liabilities when calculating a repayment schedule. Repayment instalments for those over retirement age are further limited to no more than 30% of pension income. Credit cards may only be issued to customers with an annual salary of Dh60,000 ($16,332) or greater, and the widespread practice of accepting blank cheques as security for credit card issuances, loans and overdraft facilities is now prohibited. Car loans must not exceed 80% of the asset value, and a maximum repayment period of 60 months now applies. Conventional banks and financial institutions must also adhere to a central bank-mandated formula for calculating interest. Finally, and of most significance in the view of the financial community, the new regulations establish fixed fees, commissions, deductions and charges on loans, overdrafts and credit card balances. The fee caps are to be reviewed on an annual basis by the central bank, and no fee other than those outlined by the regulations may be levied without the regulator's permission. Although many believed personal loans would be restricted as a result of the new regulations, they grew by 2.8% during the first half of 2012.

**OBJECTIVES:** The central bank offers a rationale for its decision to address the question of retail lending in the preamble to the new regulations: to establish a more transparent relationship between the banks and their customers "so as to boost confidence in banks and finance companies and enhance the credibility of the banking system". In part, the move is a response to an altered economic landscape in the wake of the global credit crisis. The large loans and liberal lending criteria that characterised the market in the pre-crisis era became a systemic problem after the economic downturn, and bad consumer debt threatened to undermine the stability of the sector.

The new regulations are intended, therefore, to underpin a new era of profitable yet responsible lending. They are also an answer to the growing number of complaints received by the central bank regarding the high levels of fees and commissions that some parts of the sector were charging their customers, the new regulations introduce an unprecedented streamlining of fees across all banks and financial institutions.

**REACTION & IMPLICATIONS:** As an attempt to reinforce the sustainability of the sector and engender a more responsible culture of credit, Abu Dhabi's lenders have broadly welcomed the reforms. "The regulations on the lending side will ultimately make the market better. What we need as a sector is patience during the re basing period. But after 18 or 24 months, you will

The central bank's new regulations on retail lending aim to establish a more transparent relationship between banks and their customers and boost the overall credibility of the banking system.

Under new regulations that came into effect in May 2011 customers can borrow up to 20 times their salary

The cap on fees and commissions is expected to transform the retail lending segment. It has already had an immediate impact on the emirate's lenders, leading to declines in non-interest income

have a less leveraged market, which is a good thing" Arup Mukhopadhyay, the executive vice-president and head of consumer banking at Abu Dhabi Commercial Bank (ADCB), told OBG.

**IMMEDIATE EFFECT:** The lifting of the Dh250,000 ($68,050) limit on lending to expatriates, in particular, is widely regarded as a progressive measure, and the new salary-linked regime that replaces it will open up new lending opportunities to Abu Dhabi's large foreign community. Of more concern to banks, however, are the new caps on fees and commissions, which in the view of some will completely reshape the retail segment. Although the new regulation was introduced as recently as May 2011, its effect on the balance sheets of Abu Dhabi's lenders was immediate. The emirate's top five lenders – National Bank of Abu Dhabi (NBAD), ADCB, First Gulf Bank (FGB), Union National Bank (UNB) and Abu Dhabi Islamic Bank (ADIB) – all saw declines in non-interest income of up to 27% as the caps on fees and commissions worked their way through the system.

This short-term outcome, however, was foreseeable and scalable; of more interest to the banking industry are the less clearly identifiable long-term implications of the new regulatory framework. For example, the question remains as to how banks' strategies will be reshaped in response to the new conditions. A partial answer came in late 2011 when ADCB outflanked the new regulations altogether by introducing free banking for its retail customers. Under its new policy, transactions and services on personal current and savings accounts are carried out at zero cost. This is a UAE first, and it has yet to be seen if the market will follow ADCB's move with similar waivers on fees and commissions.

The prospect of a sector-wide shift towards free banking, however, raises further questions. In markets where the concept of free banking is already well established concern has recently arisen regarding its potentially pernicious effect on the banking system. Banks in these markets, it has been argued, simply transfer the cost to the consumer in a less visible way, such as through lower interest rates paid on current accounts or through aggressive cross-selling of other products such as loan insurance. Some in the banking sector fear that in Abu Dhabi, where cold calling members of the public has been outlawed by separate regulations from the central bank, lenders who move to the free banking model will ramp up the telemarketing activity that is currently directed at existing customers. Hiding costs behind interest rates and attempting to bolster revenues by aggressively cross-selling products are both potential outcomes that would run counter to the original intent of the new regulations. Accordingly, ensuring that neither of these happens will be one of the regulator's chief concerns in the medium term.

**CREDIT INFO:** The framework has raised questions regarding the availability of credit information. As banks are asked to take into account a customer's accumulated liabilities when assessing his or her ability to meet a repayment schedule that fits within the central bank guidelines, the absence of a government-mandated credit bureau is a potential challenge.

Under the current system, banks are obliged to report defaults on loans after a 90-day period, and the "negative list" this creates can be cross-checked by other lenders in the UAE. Banks also have recourse to the services of Emcredit, a privately owned credit information firm established in 2006. While it has access to sources in the collation of its data, such as government departments and financial institutions, it does not have the regulatory sanction that would oblige banks to share data and verify its accuracy.

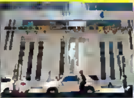
The difficulty of ascertaining a customer's liabilities with other institutions is adduced as one of the reasons why elevated fees and commissions were necessary in the market. "In an imperfect risk environment, your good customers are actually subsidising your bad customers. If you had more information, risk-based pricing would become more efficient – this would benefit good borrowers and adversely impact more leveraged borrowers," said Mukhopadhyay.

The possibility of establishing a federal credit bureau with which all lenders would be obliged to share data has been a talking point within the industry for some time. Some caution, however, that a credit bureau is no panacea: while it brings greater due diligence and transparency, it can also be misused to ramp up limits. Nonetheless, as Ala'a Eraiqat, the CEO of ADCB told OBG, "An independent credit bureau would help improve on [the] existing tools and reports" (see interview).

Nevertheless, the requirements of the new retail lending regulations have brought more calls for a federal credit bureau capable of easing the due diligence burden on the banks. In March 2012 a meeting was held in Abu Dhabi by the board of directors of the proposed federal credit bureau to discuss its operating structure and the potential regulations pertaining to it as well as to establish a working plan by which its activities will be implemented nationally. In the meantime, the central bank will have the opportunity to assess the impact of its recent regulatory changes, while it continues to prepare for the next phase of its reform process.

# Capital Markets

Exchange performed well relative to peers in 2011
MSCI emerging market status remains goal for regulator
An important centre for fund activity in the region
Issuance of corporate bonds rises in first part of 2012

The ADX market capitalisation stood at $79.5bn as of October 2012

# Confidence boost

## Ongoing reforms enhance the trading environment

The ADX will soon move from its current location in central Abu Dhabi to its new home on Al Maryah Island, the city's new business district.

The prospect of a merger between the ADX and the DFM has been a matter of speculation for some years and has gained in intensity in the wake of the global economic crisis.

While it has been another challenging year for Abu Dhabi's capital market, some developments in the fixed-income segment, new equities listings and a raft of regulations that promise to add more depth to the market have ensured that it was also an interesting one. Indeed, at just 12 years of age, the Abu Dhabi Securities Exchange (ADX) has travelled much ground in its short history.

**A BRIEF HISTORY:** Although unregulated trading in company stock has existed in Abu Dhabi for decades, officially sanctioned market activity began in the emirate with the creation of the Abu Dhabi Securities Market (ADSM) in 2000. The first task of the new institution was to persuade Abu Dhabi's considerable number of large, privately held companies of the advantages of public listing, a job made easier by a number of high-profile first movers, such as National Bank of Abu Dhabi (NBAD), which helped to inspire confidence in the exchange.

By the mid-2000s the ADSM was hosting its first foreign listings, and its recruitment drive was given a significant boost by a government mandate requiring that all public companies should be listed. A third phase of development came in 2008, when the ADSM was rebranded as the ADX. The new logo was only the outward sign of a comprehensive strategy aimed at deepening the market through new products such as exchange traded funds (ETFs), and adding more foreign listings to the board.

Enhancing the regulatory environment was a necessary corollary to this effort, and the ADX worked closely with the regulator to implement a new corporate governance code in 2009, which was applied to all joint stock companies and institutions whose securities were listed on the market.

The ADX is approaching another milestone, as it awaits a long-planned move from its current location in central Abu Dhabi to its new home on Al Maryah Island (previously known as Sowwah Island), the city's new business district. The ADX will be the anchor tenant of the island's Sowwah Square, a development consisting of four commercial towers of between 30 and 36 floors each. The ADX will also maintain its off-site trading locations in Al Ain, Fujairah, Sharjah and Ras Al Khaimah.

**REGIONAL POSITION:** Capital market activity in Abu Dhabi takes place in line with the UAE's federal-level regulatory framework, and the ADX holds a spot in the domestic market alongside a number of other exchanges. Despite having a relatively small population of 7.9m in 2011, according to the latest World Bank estimates, the UAE boasts three bourses. The ADX and the Dubai Financial Market (DFM) are both owned by their respective governments and are regulated by the Emirates Securities and Commodities Authority (SCA), a national body with its headquarters in Abu Dhabi. The NASDAQ Dubai (formerly known as the Dubai International Financial Exchange) is a privately held institution that has been in operation since 2005 and is overseen by the Dubai Financial Services Authority.

In terms of market capitalisation, the ADX is the largest of the three, with a total market capitalisation of around $79.5bn as of October 2012, compared to the DFM's $48.5bn and the $279bn of NASDAQ Dubai. The combined market capitalisation of the two government-run exchanges alone stands at around $128bn and establishes the UAE market as the third-largest in the GCC, narrowly behind the Qatar Exchange ($129bn as of October 2012) and Saudi Arabia's Tadawul, at $367.8bn. The prospect of a merger between the UAE's two major exchanges has been a matter of speculation for some years, and the public discourse surrounding the issue has gained in intensity in the wake of the global economic crisis, which has left exchanges around the world searching for liquidity. The potential gains in efficiency and the ability to attract more investors that a single UAE exchange would result in are clear, and in 2010 the CEO of the DFM announced to the local

press that the two exchanges were pursuing a merger. For now, however, negotiations remain at exchange level, and no application to the regulator for a structural alteration has been made.

**MARKET STRUCTURE:** The nine sectors by which companies listed on the ADX are grouped – banking, investments and financial services, real estate, energy, consumer staples, energy, industrial, insurance, telecommunications and services – reflect the increasing diversity of Abu Dhabi's economy, and the fruits of a government-led drive to reduce the emirate's reliance on its hydrocarbons resources. The challenging conditions of recent years have not diverted the ADX from its goal of increasing the diversification of its listings, enhancing the sophistication of the products and processes of the exchange, developing strategic partnerships and attracting a greater number of institutional investors.

As of November 2012, 67 companies had listed on the exchange, the most recent of which came in November 2011 with the addition of National Takaful Company (an Islamic insurer also known as Wataniya), after its initial public offering (IPO) in May of that year. The second half of 2011 also saw the listing of Eshraq Properties, a UAE-based real estate firm. The board is also home to nine open-ended funds, five of which are run by the emirate's largest bank, NBAD, and a single debt instrument, the NBAD Convertible Note, which dates from 2006.

In March 2010 the ADX announced the creation of the region's first ETF – the NBAD OneShare Dow Jones UAE 25. The index-tracking fund allows investors to gain exposure to a wide array of asset classes – in this case 25 blue-chip companies from across the UAE – via a single low-cost, low-risk instrument, using a model that has proved popular in other markets. The design and implementation of the ETF was largely the work of the ADX with the support of the SCA, which granted it permission to deploy its own rules until the national regulator developed suitable regulations, which were subsequently established in June 2011.

In terms of fixed-income products, Abu Dhabi's exchange has generally listed one or two bonds at any one time since its inception. Currently, the NBAD Subordinated Convertible Notes product is the only debt instrument listed on the exchange. An historic lack of sovereign issuances, due to the high levels of liquidity in the Abu Dhabi economy, has more recently given way to a government debt programme that was established to create a yield curve against which corporate issuances might be benchmarked.

**Top five listed firms by volume FY 2011 (Dh bn)**

| | |
|---|---|
| Aldar Properties | 4.22 |
| Dana Gas | 3.56 |
| Sorouh Real Estate Co. | 2.00 |
| Ras Al Khaimah Cement Co. | 1.47 |
| Rak Properties | 1.13 |

SOURCE: Global Investment House

The market is served by 52 licensed brokers, including local, regional and international firms

There were 67 companies listed on the exchange as of November 2012, the most recent of which was added in November 2011. The ADX also features one EFT as well as nine open-ended funds

While the most recent government issuance was in 2009, recent announcements by the emirate's Debt Management Office suggest that more government debt will be issued in the short term. In the meantime, an uptick in well-received corporate issuances originating from Abu Dhabi has revived hopes that a more substantial secondary debt market can be established on the ADX (see analysis).

The tracking of Abu Dhabi's increasingly sophisticated exchange is primarily carried out via the ADX General Index, a capitalisation-weighted index of stocks listed on the ADX. To be included, a stock must have been traded at some time during the previous five days. Nine sub-indices track the economic sectors by which the ADX's listings are classified.

The market was also served by 52 licensed brokers as of October 2012, including locally based, dedicated firms, as well as the brokerage operations of large multinationals (such as HSBC Middle East Securities), regional players (such as EFG-Hermes Brokerage – UAE), UAE-based firms (such as Emirates NBD) and financial houses or banks originating in Abu Dhabi (such as First Gulf Financial Services).

**RECENT PERFORMANCE:** All of the GCC markets have followed a bearish trend since the global economic crisis of late 2008, and continue to show subdued levels of trading. Lower levels of liquidity, the volatile political situation that has persisted in the broader region for more than a year, the ongoing eurozone crisis and a sluggish US economy all make for a challenging economic backdrop.

Nevertheless, the performance of the ADX over this period compares well to its regional peers. In 2010 the market put in a U-shaped performance, starting the year with an upward General Index swing that reached a peak in March with a gain of 6%, declining slightly over the summer, and rallying from September to close the year down 0.8% compared to the end of 2009. In 2011 the ADX followed a regional trend of decline, which saw the General

index dropping by 11.7% year-on-year (y-o-y), according to data released by the exchange. In a reverse image of the previous year, the high point for the General Index came on June 19 when it reached 2775.4 points, while its lowest level of 2343.3 points was reached on December 21.

In terms of volume, the number of shares traded on the ADX decreased by 96% from 176bn in 2010 to 15.9bn in 2011, while the aggregate value of trading showed a 24.9% retrenchment from Dh34.1bn ($9.3bn) to Dh24.8bn ($6.7bn).

**SECTOR-BY-SECTOR:** All nine sectors on the exchange showed declines and, as anticipated, it was the real estate industry that showed the largest drop-off (54.25%), largely as a result of the subdued performance of two sector heavyweights, Aldar Properties and Sorouh Real Estate Company. The investment sector also posted a sizeable 33.8% decline, while the energy sector showed the third-highest fall at 25.6%. Conversely, the banking index demonstrated considerable robustness during 2011 thanks to the sustained profitability shown by the banks over the year and a widely held conviction that the sector had reached a more favourable position with regard to the non-performing loan cycle. Despite the challenging environment, the banking index declined by a modest 0.04% during 2011.

Values and volumes were steady in the first half of 2012, and optimism within the financial community regarding the exchange's future growth remains firm. This sentiment was buoyed early in the year when listed company reports showed an aggregate 95% rise in profits for the first quarter, from Dh14.99bn ($4.1bn) to Dh29.2bn ($8bn).

The improvement came largely as a result of the recovery staged by the real estate sector, as well as a 26.3% rise in banking sector profits over the period. While some sectors, such as industrial consumer, and investment and financial services, have had difficulty gaining ground in the current environment, the overall improvement in profitability displayed by the ADX's listed companies has been welcomed as a useful fillip to market confidence.

**REGULATION:** Much of the optimism which surrounds the long-term prospects of the ADX can be attributed to a regulatory system which has allowed the market to grow rapidly in the 12 years since its establishment, and continues to evolve as the exchange prepares for what it hopes will be another phase of growth. The existing regulatory framework is also one that grants the ADX considerable

**Top five listed co. by market cap, 2010-11 (Dh bn)**

| Company | Dec-10 | Dec-11 |
|---|---|---|
| Etisalat | 65.35 | 72.15 |
| Abu Dhabi National Bank | 28.10 | 31.41 |
| First Gulf Bank | 25.05 | 23.18 |
| Abu Dhabi Commercial Bank | 5.56 | 15.56 |
| Abu Dhabi Islamic Bank | 7.00 | 7.47 |

SOURCE: Global Investment House

Achieving MSCI "emerging market" status is one of the SCA's main medium-term goals

freedom to set its own growth agenda. Local Law No. 3 of 2000, by which the exchange was established, defines the ADX as an autonomous body, with independent finance and management structures, as well as full supervisory and executive powers over its processes. Under the law's provisions, the exchange is charged with ensuring the soundness and accuracy of transactions, protecting investors and promoting investment awareness.

In doing so, the ADX works in tandem with the SCA, which acts as the federal regulator and shares a head office with the ADX in Abu Dhabi's Hamdan Street. Established in the same year as the ADX, the SCA governs the country's capital markets according to Federal Law No. 4 of 2000, and to date has shown its ability to work closely with the exchange in the formulation and implementation of new products and regulations. A third tier of regulation exists in the form of the UAE's Ministry of Economy, which the SCA must defer to if it wishes to address the legislative, rather than regulatory, framework by which the capital market is governed.

**EXCHANGE STATUS:** The evolution of the regulatory system that applies to the ADX and its counterpart in Dubai is central to the exchange's long-term growth strategy. Deepening the market, introducing best practices and adopting more secure technology offer the possibility of greater access to international capital. The reforming efforts of the SCA to date have resulted in the 2010 reclassification from "frontier market" status to that of "secondary emerging market" by the FTSE Group, and the upgrade to the "emerging market" category by US-based Russell Investments in 2011. In 2012 global indexer MSCI delayed its reclassification decision for the UAE and a number of other markets for another year, and achieving MSCI "emerging market" status remains the principal medium-term goal of the SCA and the UAE's exchanges. Having implemented a best-practice delivery-versus-payment system in

The market was buoyed early in 2012 when listed company reports showed an aggregate 95% rise in profits for the first quarter, from Dh14.99bn ($4.1bn) to Dh29.2bn ($8bn)

New rules require buyers to inform the market if they intend to purchase 30% or more of a listed company

2011, a new package of regulation is due for final approval in 2012 which will introduce market making, short selling, and securities lending and borrowing to the market for the first time (see analysis).

**CORPORATE GOVERNANCE:** While these measures represent the central regulatory thrust by which the SCA intends to secure a further market upgrade, they form part of a wider process of reform which has greatly enhanced the trading environment in the UAE. This includes the new corporate governance regulations that were introduced by the SCA in 2009, with which listed companies were obliged to comply by April 30, 2010.

Based on international standards, the corporate governance code addresses fundamentals such as board structure (establishing independent directors, audit and remuneration committees, and compliance officers), reporting standards, disclosure obligations regarding shareholders and ongoing compliance commitments. Another boost for disclosure and transparency came in June 2012 when the SCA implemented new stock ownership rules requiring buyers to inform the market if they intend to purchase 30% or more of a listed company. The regulator retains the authority to reject proposed transactions if they are deemed to run counter to the interests of shareholders or the economy.

**INVESTMENT FUNDS:** The SCA has also turned its attention to the issue of investment funds over the past year. The high levels of liquidity within the Abu Dhabi economy have made it an important centre of fund activity both within the UAE and the wider GCC region, although the absence of comprehensive fund industry data makes its precise contribution to either market difficult to ascertain.

In July 2012 the SCA issued resolution No. 37 of 2012, which covers the rules governing investment funds. The new regulations establish a comprehensive regulatory framework for investment funds operating in the UAE

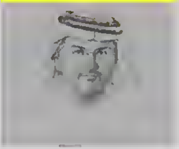
"The Gulf Cooperation Council Mutual Fund Industry Survey", published each year by NBAD, tracks the information available and shows that investment funds in the emirate are largely those of local bank sponsored entities or local and regional investment companies, but it notes that data for foreign banks and institutions is generally not readily accessible. According to the published data there were 35 locally domiciled funds in the UAE as of June 1, 2011, with assets under management of $792m, as well as 21 funds in the GCC that indicated the UAE as their geographic focus, with assets under management of $564m. Of the UAE's fund managers, Abu Dhabi's NBAD controlled the second-largest percentage of total assets, at 11.6%, while other prominent Abu Dhabi-based managers include The National Investor and ADIC Investment Management.

In July 2012 the SCA issued resolution No. 37 of 2012, concerning the rules governing investment funds. The new regulations establish a comprehensive regulatory framework by which investment funds in the UAE are to be operated. The first chapter deals with, *inter alia*, the licensing of local funds, their investment policies asset evaluation, financial reporting, the board of directors, conflicts of interest and inspection procedures, a second chapter includes a number of articles relating to the obligation of investment funds' service providers and custodians; the third chapter deals with foreign investment funds operated within the country, setting out terms and conditions regarding their promotion as well as their obligations, while the final chapter outlines a range of offences, penalties and appeal procedures.

At the announcement of the regulations' implementation, Abdullah Al Turifi, CEO of the SCA, explained the rationale of the regulator's decision. "The resolution is part of the SCA's endeavour to issue new investment products and diversify the investment tools available to traders in the markets. It will boost the investment climate in the local markets and help attract new investments and liquidity."

**OUTLOOK:** The significant regulatory steps taken over the past year, and a pipeline of reforms still to come, form the framework on which the future expansion of the ADX will rest. Yet more functionality will come with an upgraded trading platform planned for the second half of 2013. The NASDAQ OMX X-Stream technology will provide Abu Dhabi's exchange with a multi-asset class platform capable of handling trades in equities, fixed income and ETFs, as well as offering capacity for additional financial instruments such as options and futures as the exchange continues to develop.

Like all exchanges in the region, the ADX faces a challenge in attracting new listings and liquidity, in part due to factors that are beyond its control. However, an upgrade by MSCI, which the SCA and ADX are working assiduously towards, has the potential to offset the adverse effects of Europe's debt woes, regional unrest and a struggling US economy. The ADX also derives strength from the domestic economy, which grew at a robust 3.3% in 2011, with nominal output regaining its pre-crisis level of $360bn, according to the Central Bank of the UAE. While mixed results are expected in the short term, the long-term prospects of the ADX remain as strong as ever.



Rashed Al Baloushi, CEO, Abu Dhabi Securities Exchange

# Constant development

## OBG talks to Rashed Al Baloushi, CEO, Abu Dhabi Securities Exchange (ADX)

**How is the ADX helping to develop Abu Dhabi as a regional centre for capital markets?**

**AL BALOUSHI:** Our first pillar of development is focused on the equity market's structure. We are trying to build its strength through implementing international best practices and regulations.

We are also enhancing the services the ADX provides its stakeholders. This includes automation of transactions, making processes faster and providing easy access to the market. The second pillar is the diversification of financial products. The ADX has predominantly focused on the equity market but would prefer to have a more diversified basket of options with derivatives and futures.

The third and final pillar is expanding the participation of institutional investors. We currently have many individual retail investors, who provide a lot of liquidity, but take a different approach to institutional investors. Institutions get into the market at the right time, take a long-term view, and have the money to both drive the market and to help make it a more robust overall environment.

**What strategy is being pursued to attract foreign investors, especially when considering the conditions in global markets?**

**AL BALOUSHI:** While global market conditions are relatively unpredictable at the present time, there is still money available waiting to be invested where there is a return. ADX is receiving very positive news about the outlook for the UAE's economy, including strong year-on-year growth.

Lately, the government of Abu Dhabi has started boosting infrastructure development, which means that public, private and family-owned companies will need to play a greater role in the overall process of development. Furthermore, all the figures show an increase in profits when reviewing economic data from 2011. If an investor looks at Abu Dhabi and compares it to other economies, they can see that there is an opportunity here because it is a market constantly in the process of developing itself.

**How is the ADX going about deepening the local debt market and encouraging more businesses to pursue this as a source of financing?**

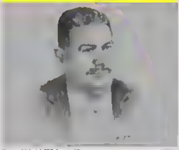
**AL BALOUSHI:** The ADX has a role in increasing awareness of the debt market and developing programmes to get groups involved. What is most important is being prepared for when clients want to invest in bonds or increase their capital through an initial public offering and ensuring that proper infrastructure and procedures are in place.

An exchange is a financial platform with instruments related to those businesses looking to raise capital. It all comes together and matures with awareness, communication and experience. Looking at debt issuance, commercial operators need to see a benchmark. This benchmark yield curve is always based on sovereign participation, which is the first enabler to strengthening the bond market. Without involvement from government officials, it is not possible to have a strong debt market.

**How would local capital markets be impacted if the UAE were to garner an "emerging" market classification from MSCI?**

**AL BALOUSHI:** What is most important is to maintain the global standards and procedures that investors have come to value in the ADX. Some ratings agencies have also upgraded Abu Dhabi from BBB to A-, which is good news. We are always trying to better our position and gaining emerging market status will do a lot for that.

Once this is achieved, we will press on and try to meet the criteria laid out for "developed" market classification. By aligning the market with the G30 and International Organisation of Securities Commissions recommendations, we are developing some of the best-in-class processes for our exchange



Nazem Al Kudsi, CEO, Invest AD

# Getting the ball rolling

## OBG talks to Nazem Al Kudsi, CEO, Invest AD

**What effect has the slowdown of Western economies had on institutional investors' appetite towards the Middle East and Africa (MEA)?**

**AL KUDSI:** Due to uncertainties in the global economy, institutional investors have been very risk averse in the last four years, but there are clear signs that they are looking to new growth markets, such as in the MEA region, to help lift returns. A survey of 158 global institutional investors, commissioned by Invest AD and carried out by the Economist Intelligence Unit, showed that almost one-third intend to allocate about 5% of their assets to Africa in the next five years, indicating there will be significant flows of capital to the continent.

Investors realise that the MEA region is undergoing similar changes to those experienced by East Asia in the 1980s and China in the 1990s. In many countries, economic expansion is underpinned by natural resource wealth. However, the entry of new capital to the MEA region is likely to be a medium- to long-term phenomenon. Capital markets need to develop further to be able to absorb larger amounts of capital. This is still a challenging time because global markets continue to frequently switch between risk-on and risk off modes usually depending on decisions made by monetary and political authorities in the US and Europe. Despite the high potential for growth, the region's markets are still influenced by fluctuations in global capital.

**In what ways has political turmoil in the region influenced the investment climate and strategies?**

**AL KUDSI:** Social change often comes fast and unannounced, causing disruption to people's lives, governance and decision-making processes. But in change there always lies opportunity. I think historians will look back upon the 2008-09 global economic crisis as a turning point for the whole world and the changes in MEA in 2011-12 will be one component. It is clear that provision of jobs and a decent standard of living are among the key challenges all policymakers face. In the MEA region, this should encourage private investment and a move away from direct government involvement in the economy, whether through state firms or subsidies. I think we will see improved governance across the region and more investment-friendly policies.

**How would you characterise Abu Dhabi's positioning as an investment window for the MEA region?**

**AL KUDSI:** Abu Dhabi is well positioned as a window to the wider region because it has a long history of positive engagement and investment across the MEA and has developed extensive global financial linkages. In my experience, Abu Dhabi companies are welcomed because we have a long term view on investment and believe in fostering lasting relationships. Our experience in building a modern, diverse and open economy is respected, and also helps us understand the challenges facing emerging economies across the region.

**How much weight should be attached to the frontier versus emerging market distinction?**

**AL KUDSI:** Although many institutional investors may have little or no exposure to frontier markets because of constraints imposed by their investment mandates, I think the distinction between frontier and emerging markets will gradually diminish over time with greater flows of information. The asset management industry in frontier markets has seen a shake-out since the global economic crisis, leaving a smaller and much more professional group of managers. For example, Invest AD has established undertakings for collective investment in transferable securities (UCITS) IV-compliant funds our funds reporting is compliant with the global investment performance standards, and we are employing best practice by engaging third-party service providers for custody and funds administration. We take the frontier market investment story directly to institutional investors, supplying a constant flow of information, and even taking them to the markets where we invest. Essentially, professional asset managers can help to reduce the risks of investing in frontier markets.

New tools could boost trading activity and volume on the ADX

# The next step

## A range of updated rules support the bid for reclassification

Formulating market regulation in the UAE is a symbiotic process, in which the Securities and Commodities Authority (SCA) works closely with the Abu Dhabi Securities Exchange (ADX) and its counterpart in Dubai. A long history of cooperation has enabled the regulatory framework to keep pace with the demands of the nation's evolving capital markets – a tradition that has been maintained in 2012 with an array of draft rules being put out for consultation. The regulatory innovations expected to be approved in 2012 promise to bring a new degree of functionality to the ADX and are part of a broader aim to set the UAE's markets on a path to greater depth and liquidity.

**NEW DRAFT REGULATIONS:** In November 2011 the SCA published a batch of draft regulations by which it intends to deliver three significant new functions to the UAE's capital markets: market making, the practice of a broker or dealer holding shares in a security, offering a buy and sell price for them and seeking a profit in the spread; short selling, which will allow Abu Dhabi's brokers to lend stock to customers who wish to go short on a stock that they believe will decline in price; and securities lending and borrowing (SLB), which enables the lending of stock to an investor or firm, usually for a fee.

Clearly, the three processes introduced by the proposed regulation are interdependent – an effective securities lending mechanism is necessary for the practise of short selling so that an investor can borrow stock from a broker, sell the shares and have the proceeds credited to his or her account, and then return the same amount of shares to the broker, having profited from the arbitrage opportunity should the stock have fallen in price since they were borrowed. The ability to borrow securities is also crucial to the market making component of the new legislation. At any given time market makers may find themselves selling more securities than they are buying, and the ability to lend and borrow shares is central to ensuring settlement efficiency in the market making process.

**IMPLICATIONS:** At a functional level, the new processes which the draft regulations promise to deliver will result in a more sophisticated market and bring the ADX into line with other developing exchanges. The availability of such new tools has the potential to revive trading activity and volume on the ADX, both of which declined after the global economic crisis. They will also provide a welcome respite to Abu Dhabi's brokerages, which have suffered most as a result of the muted market sentiment that has persisted since 2009. Recent years have seen the exit of a number of firms, while those that remain have been compelled to lower their fees and commissions to retain clients. The new revenue streams that market making and short selling create will therefore be widely welcomed by the domestic brokerage segment.

Similarly, banks with custodian services in Abu Dhabi also stand to benefit from the ability to help their clients borrow and lend stock. While there is general agreement, then, regarding the potential of these changes to revive the market, the timeframe by which these benefits will become apparent is the subject of considerable debate in the local press. Some within the financial community point out that the relatively small number of stocks listed on the ADX will limit the volume of security lending, and therefore market making and short selling, for the short term.

**THE BIGGER PICTURE:** While this may be true, it is also worth remembering that the regulatory package proposed by the SCA is part of a larger strategy that aims to boost liquidity and listings in both of the UAE's government-run exchanges. For some years now, the UAE has been working with global indexers and investment support firms to raise the nation's ranking and tap into the trillions of dollars' worth of capital that is invested according to their various data sets. To date, it has had considerable success in this regard. In 2010, the FTSE Group was the first such institution to grant the UAE "secondary emerging market" status, thereby opening the door to some of the $3trn of funds

Draft regulations published by the SCA in November 2011 indicate that the regulator may soon introduce three new activities to the country's capital markets: market making, short selling, and securities lending and borrowing

*The SCA has yet to secure "emerging market" status from the US-based MSCI, but the most recent proposed regulatory changes are among the factors that the global indexer takes into consideration when assessing exchanges*

that track the London-based index-compilers' benchmarks. The action resulted in a useful boost in market sentiment during a difficult year, and raised hopes that other reclassifications would soon follow.

The following year brought more welcome news. In August 2011 global fund manager Russell Investments upgraded the country from "frontier market" status to the "emerging market" category. The UAE is the only GCC economy to have been granted such an upgrade by the US firm, which based its decision on an assessment of the nation's performance in terms of market accessibility, operational risk, market size and inevitability measures, as well as taking into account macro factors such as GDP per capita, market capitalisation to GDP and the UAE's favourable placing according to the World Bank Income Category.

**A BID FOR NEW STATUS:** For many in the financial community, the ultimate prize has yet to be won: a reclassification to "emerging market" status by the US-based MSCI. The global indexer's benchmarks are tracked by investors with around $7trn in assets, and securing the classification upgrade is widely viewed as central to SCA's efforts to boost liquidity in the UAE's markets. Meeting the stringent requirements laid out by MSCI has kept the market regulator busy for some time, and its efforts to meet this objective have significantly influenced the formation of its regulatory structure in recent years. The proposed market making, short selling and SLB regulations are among the processes which the MSCI takes account when assessing the exchanges within its coverage, but they represent just the most recent phase of reform.

In May 2011 the UAE implemented a delivery-versus-payment (DVP) service, whereby the delivery of securities can now take place simultaneously with payment for them. The lack of such a system had been cited by MSCI as a reason for not upgrading the market, and its introduction therefore raised hopes that a reclassification would take place in December 2011. However, MSCI was not minded to move quickly and at the close of the year announced that it needed to "give additional time for market participants to assess the effectiveness" of the DVP system, deferring its decision until June 2012.

The announcement in June 2012 that the UAE and Qatar, the other GCC nation in line for a status upgrade, would remain under reclassification review for a further year therefore came as a disappointment to the market. However, most agree that the UAE's upgrade to "emerging market" status remains a likelihood rather than a possibility. By the next evaluation, the DVP system will have had time to demonstrate its stability, and the new market making, short selling and SLB functionalities should have been firmly established.

**FOREIGN OWNERSHIP:** The remaining conflict between the MSCI's stipulations and the domestic regulatory environment, it is hoped, will also have been resolved as the 49% upper limit on foreign ownership of listed companies now represents the most significant outstanding issue in relation to the MSCI's requirements. In this regard, the UAE has less distance to travel than Qatar, which maintains a 25% maximum limit, and it is hoped that a compromise between the MSCI's strictures and the UAE's wish to protect its national assets can be reached soon.

The question of foreign ownership also remains one of principal rather than a practical challenge. "Foreign ownership has not been an issue for investors in the UAE's financial markets. In fact, all companies whose shares can be purchased by foreigners have current foreign ownership comfortably below the limit," Ryan Lemand, the senior economic advisor and head of risk management at the SCA, told OBG. The recent publication of a draft UAE Companies Law also suggests that authorities may be willing to change the rules. Among the draft law's key features is provision that would allow the Cabinet the authority to issue further legislation granting companies that carry out "certain activities" to maintain a foreign shareholding component exceeding the current limit of 49%. This would represent a significant policy change, and one that would doubtless be welcomed by MSCI.

Local firms sold a large amount of debt in the early months of 2012

# Added activity

## Bond market receives a boost with a number of issuances

The opening months of 2012 were characterised by renewed optimism throughout GCC debt markets, as a series of well received bond issuances suggested that the period of quiescence that followed the global economic crisis had reached its end. Regional issuers moved to take advantage of favourable funding costs and increased liquidity in the market, and Abu Dhabi-based firms played a sizeable part in issuing activity, making the UAE the largest source of corporate bond issuances in the first quarter of 2012, according to global consultancy PwC.

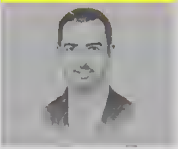
**NEW BONDS:** First came a string of *sukuks*, or sharia-compliant issuances (see Islamic Financial Services chapter). In November 2011 two of the emirate's largest lenders, Abu Dhabi Commercial Bank and Abu Dhabi Islamic Bank, went to the market with sukuk offerings, each worth $500m and with a five-year tenor. First Gulf Bank (FGB), the third-largest lender in Abu Dhabi, followed them in January 2012, also with a five-year, $500m sukuk issuance, and priced at a similar 4.05%.

The sale was the second of this scale for FGB in a year, and reflects the growing need for Abu Dhabi's lenders to fund the expansion of the sharia-compliant loan books that account for much of the banking sector's current growth. Gulf-based businesses have also shown a desire to diversify away from dollar financing in recent years, and the February 2012 sukuk issuance by the Abu Dhabi National Energy Company reinforced this trend. Its RM650m ($209m), 10-year sukuk priced at 4.65% was the latest phase of a debt programme that it has directed at the Malaysian market. However, the largest debt issuance in early 2012 to originate from Abu Dhabi was the $1bn bond from Dolphin Energy, which was so popular that the majority government-owned company issued a subsequent tap bond worth $300m. Both bonds mature in December 2021 and yield 5%. The following month, the National Bank of Abu Dhabi (NBAD), the emirate's largest lender by assets, made another issuance that rounded out the emirate's first-half 2012 debt market activity. The $750m offering carried a coupon of 3.25% and matures in 2017. NBAD sold another $750m worth of bonds in August with a maturity date of 2019.

**SECONDARY TRADING:** The uptick in debt issuances originating from the domestic market in 2012 has revived a public discourse concerning a secondary debt market on the Abu Dhabi Securities Exchange (ADX). Currently, the vast majority of bond and sukuk trading is conducted through over-the-counter deals, whereby investors transact directly with brokers or banks' trading floors. The ADX, however, has well-established regulations for listing debt instruments, as well as the electronic platform necessary to host them. "The law is there, the platform is there – now it is just a matter of persuading companies to list," Khalid Khalfan Al Suwaidi, the head of finance and management affairs at the ADX, told OBG. The ADX has successfully listed bonds in the past, although these have been convertible and linked to equity. This is the case with the sole bond listed on the market as of November 2012, a Dh2.5bn ($680.8m) subordinated convertible note issued by NBAD in 2006. The listing of a pure fixed-income instrument would represent a significant step forward towards a viable secondary market on the ADX.

One development that could boost the fixed-income market would be a new issuance of government debt. The emirate's government last turned to the market in April 2009, when it successfully offered a five-year, $3bn bond. Combined with the five-year sovereign issuances of 2007 and 2009, the most recent government debt offering has gone some way toward creating a yield curve that might be usefully added to in the current climate. In 2011 an official from Abu Dhabi's Debt Management Office (DMO) – the body charged with coordinating the debt issuances of the emirate's government and quasi-government bodies – announced that the emirate

While most trading of fixed-income instruments is conducted through over-the-counter deals, the ADX has well-established regulations for listing debt instruments, as well as the electronic platform necessary to host them



Mohammad Al Murtada Al Dandashi, Partner & MD, Al Ramz Securities

# Continuing growth

## Mohammad Al Murtada Al Dandashi, Partner & Managing Director, Al Ramz Securities, on economic prospects and capital market challenges

Despite the international volatility since 2008, the UAE has managed to sustain its economy and even emerge in stronger shape in various fields. High oil prices, solid infrastructure and cohesive socioeconomics, among other factors, have helped the national economy continue its long-term growth.

The UAE is a safe haven for foreign direct investment (FDI), as well as a business centre for those interested in the Middle East and North Africa. It has witnessed remarkable growth in inflows from abroad and money supply since the start of the Arab Spring.

Flourishing non-oil industries, supported by the developing knowledge-based economy, are gaining substantial momentum. A growing population and Abu Dhabi's Economic Vision 2030 all point to evolving business opportunities in the near future. In that respect, the Department of Economic Development has recently confirmed that GDP may grow 3.9% in 2012 to around Dh750bn ($204.15bn), followed by an average annual growth of 5.7% through 2016. Meanwhile, Abu Dhabi received about Dh3.5bn ($952.7m) of FDI in the first five months of 2012, and that is expected to more than double after major projects are completed.

Needless to say, expanding businesses require efficient channels of finance, including credit facilities, as well as capital markets. Both debt and equity instruments are utilised in different stages of the business cycle, but there are some challenges that currently restrain our equity markets from growing.

Oil and gas activities represent more than 45% of Abu Dhabi's GDP, followed by construction and contracting, which together contribute some 12% to prospective GDP. Real estate is expected to form about 8.8%, while financial services are estimated at 6.1%.

On the other hand, the stock exchange is structured very differently, with over 30% of market capitalisation represented by Etisalat. The biggest two banks, National Bank of Abu Dhabi and First Gulf Bank, make up 26%. Developments in the credit market and money supply are fairly represented by the stock prices of listed banks. The same applies to real estate development, utilities and telecommunications, but other vital areas of the economy are not being equally mirrored.

Moreover, the Abu Dhabi Securities Exchange's (ADX) market-capitalisation-to-GDP ratio is estimated at 30%, compared to over 60% for Saudi Arabia and Qatar. These figures suggest that stock market indices neither offer a good gauge of economic sectors, nor represent an efficient leading indicator to adopt. In fact, the absence of listed petrochemicals companies, media players and educational services causes the general index to lag behind actual macroeconomic performance.

Having said that, we strongly believe it is worthwhile to map a strategic plan that paves the way for private companies to go public. Of 64 companies listed on the ADX, 41 are partially open to foreign and GCC ownership (limited to 15-49%), while 23 companies are open only to nationals. Total market capitalisation of ADX's listed companies was Dh249bn ($67.8bn) as of late September 2012. Consequently, the maximum market value that non-UAE traders could hold is around Dh45bn ($12.25bn), representing 18% of the entire market (it does not currently exceed 5%). This limitation is cut further down when we adjust to free float rates.

We strongly believe that decision-makers endeavour to allow short-selling and activate the function of market-makers, which will have a tremendous impact on the market's level of activity. Authorising margin trading was a commendable milestone. These concepts are deemed to be essential requirements for institutional players to perform well in any market, especially hedge funds and investment banks whose mandates include developing structured products. They also help reduce the risk perception of illiquidity and form a counterbalance for highly leveraged purchases. We therefore hope that decision makers will expedite the process of introducing these instruments as soon as possible. And finally, we must emphasise the importance of having an active bond market to facilitate the management of capital structures, as well as business expansion.

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Maestro
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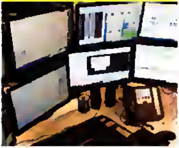
+971 2 62 62 444
info@alramz.ae
32000, Abu Dhabi, UAE



Reaching out to global exchanges is improving the bourses business

# International relations

## The bourse is looking for partners abroad

According to the most recent ADX data, during the period between the inception of the exchange and the end of 2011, a total of 904,980 National Investor Numbers (NINs) were issued. NINs are necessary to interact with the exchange. Some 344,367 were granted to foreign investors, the majority of which (272,455) came from GCC nations, followed by investors from other Arab countries (44,660), and a smaller number (22,252) from beyond the Middle East and North Africa region. The ADX's plans to diversify liquidity risks in the market by attracting foreign investors call for an increase in the latter category in particular. It is anticipated that inflows from pensions and investment funds based in advanced economies will increase when the ADX is upgraded from MSCI "frontier" to "emerging market" status, a goal towards which the exchange and the regulator are working.

**AWARDING EXPERIENCE:** The ADX has already made tangible progress in attracting external investment. Net foreign investment increased 125% to Dh60m ($16.33m) in 2011, after a decline the previous year, and it continues to build on its international links to promote itself as a location for investment. Part of the promotions process involves strengthening the bourse's ties with exchanges around the world. In 2012 the ADX made significant advances in this regard. In October 2012 the ADX became a full member of the World Federation of Exchanges (WFE), after succeeding in a ballot held at the 52nd General Assembly of the global body in Taipei, Taiwan. In doing so, it became the youngest exchange in the WFE's history to gain full membership. The accolade is more than a symbolic acceptance by the global community. October's election was the culmination of many visits by WFE staff to Abu Dhabi to assess and measure the ADX's progress against its membership criteria.

"Through our employees hard work, we have cultivated excellence and have earned recognition among the more 'grown up' stock markets," Rashed Al Baloushi, the CEO of the ADX, said in press release at the event.

**MAIN EVENTS:** The ADX's elevation to full membership was one of the highlights of a year that saw it focus on its external relations. These included an ongoing programme of promotional exhibitions, forums and roadshows staged with a view to promoting investment in the ADX, such as the Abu Dhabi Investment Forum staged in China and Korea. Additionally, a number of technically focused industry events which, although not investment-orientated, played an important role in raising the ADX's profile.

In March 2012 Abu Dhabi hosted the third Middle East Securities Forum, which began in Doha in 2010 before moving to Muscat the following year. The event brought representatives from exchanges, banks, regulators and investors to the UAE's capital for two days to discuss a range of industry topics centred on the broad theme of financial infrastructure development.

In September 2012 the ADX sent a delegation to the 17th General Assembly of the Federation of Euro-Asian Stock Exchanges, held in Almaty, Kazakhstan. The gathering of chief executives of exchanges, depositories and brokerage-dealer associations from the emerging markets of Europe and Asia also provided an opportunity for the first meeting of the Eurasia Group on Corporate Governance for Capital Market Development, which was staged by the Organisation for Economic Cooperation and Development (OECD) in conjunction with the Kazakhstan Stock Exchange.

Other significant events that enabled the ADX to enhance its international profile included a seminar on allocating capital in challenging markets, organised by *The Financial Times* and Threadneedle Asset Management, and EuroFinance's ninth conference on strategic cash and liquidity management for companies in Europe – both held in March 2012.

The exchange has been assiduous in its pursuit of opportunities for cooperation with other exchanges. This is important to its wider strategy of increasing awareness of Abu Dhabi as a target for global investment, and 2013 is expected to see this policy continue

Net foreign investment into the ADX jumped 125% during 2011 to $16.33m, following a decline the previous year. Nearly 345,000 foreign investors have NINs for participating in trading on the bourse.

Share analysis & data provided by
Al Ramz Securities

UNB price & index relative performance


UNB market ratios — Reuters code: UNB.AD

| PERFORMANCE | Data as of September 30, 2012 |
|---|---|
| Price (Dh) | 3.06 |
| Shares outstanding (bn) | 2.50 |
| Floated shares (bn) | 2.50 |
| Market cap (Dh bn) | 7.51 |
| MARKET RATIOS | |
| 90-day avg. value traded (m) | 13.97 |
| Price/book ratio | 0.57 |
| EV/EBITDA book | 3.15 |

# Union National Bank

## Financial services

**THE COMPANY:** Established in 1982, Union National Bank (UNB) has become a leading commercial bank in the country. To date, UNB has 55 branches across the UAE providing basic services, such as deposits, loans and credit cards, as well as more complicated ones including wealth management and investment banking. UNB is also one of the traditional commercial banks that have opened their own Islamic service windows which provide services that include asset management and investment banking. In addition, UNB offers conventional and Islamic brokerage services through its subsidiary, UNB Brokerage Company. Meanwhile, another subsidiary Al Wifaq Finance Company, offers sharia-compliant financial, commercial and investing services to both retail and institutional customers.

As part of the bank's vision to expand its geographic presence, it has established UNB Egypt after successfully acquiring the erstwhile Alexandria Commercial & Maritime Bank. UNB has also ventured to Qatar, putting up a branch in Doha, and opened a representative office in Shanghai, as an initial step to exploring the burgeoning trade relations between the UAE and China. In 2011, UNB also received a licence to operate in Kuwait. The bank is reviewing other locations and strategic alliances that will add to shareholder value.

UNB's major shareholders include the Abu Dhabi Investment Council (50.01%) and the Investment Corporation of Dubai (10.00%), while the rest of the shares belong to the public.

**FINANCIAL PERFORMANCE:** In the first half of 2012, UNB reported a 6.32% advance in its attributable profits to Dh926.78m ($252.25m), underscoring continuing improvement and the strength of both the bank's franchise and business model. The improvement in profits came on the back of stronger interest income and improved interest margins. Net interest income from conventional and Islamic financing improved by 10% year-on-year. Effective liquidity management coupled with a reduction in the cost of deposits led to an improved net interest margin in the first half of over 3%. This, along with higher average interest-earning assets led to an increase in the net interest income and income from Islamic financing.

UNB continues to show some of the negative aftereffects of the amendment made in 2011 on the rule on retail banking as fees and commission income have both dropped. However, this was partially offset by gains on dealing in foreign currencies and trading and non-trading financial instruments, which together increased by 137% in the first half to Dh60.6m ($16.49m).

Credit volume increased by 1.9% quarter-on-quarter to Dh57.3bn ($15.6bn), as of June 30, 2012. Meanwhile, deposits rose at a faster rate of 2.6% to Dh60bn ($16.33bn). The loans-to-deposits ratio stood at 95.5%, as of June 30, 2012, mostly unchanged compared to end-2011. UNB's non-performing loans (NPL) ratio, as of June 30, 2012, reached 4.9% versus 3.7% as recorded in end-2011. Loan loss coverage, meanwhile, stood firm at 62.1%. The higher NPL ratio's negative read-across is somewhat diluted by the bank's capital adequacy. The capital position of UNB was augmented as well by the Basel II capital adequacy ratio, after the distribution of the cash dividend for the year 2011 and the payment of interest on the Tier 1 capital notes, improving to 23.1% as of June 30, 2012 from 21.9% in end-2011, an increase of 120 basis points. In April 2012, global ratings agency Fitch affirmed its A+ rating of UNB, with outlook kept at stable, on account of UNB's steady profitability, liquidity and capital adequacy.

**SHARE PRICE PERFORMANCE:** UNB's share price is up more than 7% year-to-date, hitting a high of Dh3.30 ($0.90) per share in August 2012. The rise was reflected sector-wise, as overall bank earnings performed robustly in the second quarter and the first six months of 2012. Medium-term support level for UNB is seen at Dh3.00 ($0.82) per share, followed by Dh2.76 ($0.75). Resistance is seen at Dh3.30 ($0.90) per share, followed by Dh3.50 ($0.95). Note that these sentimental barriers were spotted as of September 30, 2012 and based on a closing price of Dh3.06 ($0.83) per share.

Share analysis & data provided by
Al Ramz Securities

ADCB price & index relative performance


ADCB market ratios — Reuters code: ADCB.AD

| PERFORMANCE | Data as of September 30, 2012 |
|---|---|
| Price (Dh) | 3.26 |
| Shares outstanding (bn) | 5.60 |
| Floated shares (bn) | 5.26 |
| Market cap (Dh bn) | 18.91 |
| MARKET RATIOS | |
| 30-day avg. value traded (m) | 23.58 |
| Price/book ratio | 0.80 |
| EV/EBITDA ratio | 3.91 |

# Abu Dhabi Commercial Bank

## Financial services

**THE COMPANY:** Abu Dhabi Commercial Bank (ADCB) was formed in 1985 when Khalij Commercial Bank merged with Emirates Commercial Bank and Federal Commercial Bank, and changed its name. ADCB's principal activities include wholesale banking, consumer banking, treasury and investment-related services. Additionally, the bank offers services to its customers including financing facility, cash management services, trade services, debit cards, credit cards, deposit accounts services, treasury services and investment-related services. Moreover, it operates through its network of 48 full service branches in the UAE, its two branches in India and its one branch in the UK.

The government of Abu Dhabi through the Abu Dhabi Investment Council and Tasameem Real Estate Company holds 64.05% of ADCB shares, the remainder is held by other institutions and individuals. ADCB is one of the largest banks in the UAE in terms of shareholder funds and market capitalisation.

**FINANCIAL PERFORMANCE:** While the reported shareholder profits of ADCB in 2Q12 showed a decline of 45% year-on-year (y-o-y), its recurring profits (exclusive of the one-time gain from the sale of its stake in Malaysian lender RHB) showed a different story by rising strongly to Dh736m ($200.33m) from 2Q11's Dh19m ($5.17m). The improvement in recurring profits is attributable to the accelerating growth in traditional lending income, increasingly tighter operating expenses and lower provisions.

After four succeeding quarters that saw y-o-y income from conventional banking decline, ADCB recorded a positive growth of 10% in its lending income in 2Q12. It is noteworthy that the improvements in lending income came significantly from increased interest income to customers as the latter grew by 10% y-o-y and 8% quarter-on-quarter. If this development continues in successive quarters, then this could be the beginning of another growth trajectory for ADCB's traditional banking business. Net interest income from lending advanced by almost 40% y-o-y while operating expenses fell more than 4%. Meanwhile, provisions for non-performing assets dropped by more than 47% in 2Q12 from their level in 2Q11. Although ADCB's reported profits of Dh733m ($199.51m) declined by 45% y-o-y, the result stayed above Al Ramz's estimate of Dh616m ($167.67m) as well as the overall consensus estimate of Dh661m ($179.91m).

Despite the still struggling growth in credit volume and the evolving rules pertaining to banking operations, ADCB seems to be handling challenges admirably. In the last quarter, ADCB has been able to limit the decline in overall net loans, and at the same time improve retail loans as well as contractor finance and loans for property investments, which all three combined accounted for more than 25% of the total.

Furthermore, ADCB appears to be moving towards the long-term benefits of the central bank's structural changes, as fee-based income has recovered after falling in the previous three quarters and the non-performing loans ratio has dropped to 4.7% in June 2012 from 5.5% in March 2012.

If there is one thing that UAE banks, including ADCB, may boast of in the international banking community, it is that they are highly capitalised, with the sector's overall average capital adequacy ratio (CAR) at 23% as of end-2011, which is more than twice the 8% prescribed by the Basel Committee. ADCB's CAR of 22.34% in June 2012, while lower than the 23.19% recorded in March 2012, remains ahead of the 12% floor set by the central bank as well as these floors set by international banking authorities.

**SHARE PRICE PERFORMANCE:** ADCB's share price is up 18% year-to-date. It has hit a year high of Dh3.45 ($0.94) a share following the strong quarterly results as of June 30, 2012. Medium-term support level is seen at Dh2.89 ($0.79) a share, followed by Dh2.56 ($0.70). Resistance over the medium term is seen at Dh3.45 ($0.94) a share. Note that these sentimental barriers were spotted as of September 30, 2012 and were based on a closing price of Dh3.26 ($0.89) a share.

Share analysis & data provided by
Al Ramz Securities

Aldar price & index relative performance


Aldar market ratios — Reuters code: ALDAR.AD

| PERFORMANCE | Data as of September 30, 2012 |
|---|---|
| Price (Dh) | 1.25 |
| Shares outstanding (bn) | 4.09 |
| Floated shares (bn) | 4.09 |
| Market cap (Dh bn) | 5.07 |
| **MARKET RATIOS** | |
| 90-day avg. value traded (m) | 142.21 |
| Price/book ratio | 0.66 |
| EV/EBITDA ratio | 0.00 |

# Aldar Properties

## Real estate

**THE COMPANY:** Aldar Properties is a real estate development, management and investment company with headquarters in Abu Dhabi, UAE. The establishment of Aldar Properties was approved in October 2004 by the Abu Dhabi Department of Planning and Economy, and the company's incorporation was declared in February 2005. Since launching, the company has announced assignments worth more than $75bn in a property development portfolio diverse in scope and style. Aldar's first international expansion was announced in August 2007 via a tie-up with South Johor Investment Corporation in a deal that represents the largest foreign real estate development in Malaysia.

Aldar's financial credibility has been recognised by international credit rating agencies. Most recently, Moody's issuer rating was Ba3 while Standard & Poor's credit rating was B+. With this, it was announced early in 2012 that UAE real estate developer Sorouh and Aldar were in talks for a potential merger supported by the federal government. A due diligence for the potential consolidation remains under way.

**FINANCIAL PERFORMANCE:** The delivery of land plots and residential units in major development projects along with the healthy growth in recurring income supported Aldar's strong profit performance in the first half of 2012, when attributable profits rose over 180% to Dh896m ($243.88m).

Aldar handed over 1058 completed units at Al Raha Beach, spurring the performance of the development business. Meanwhile, its portfolio of investment properties continued to grow with both office and retail portfolio expansion as retail communities at Al Bandar, Al Zeina and Al Muneera became operational. Other investment properties, such as Ace Hardware at Yas Island and Motor City, have also been completed and are now operational.

In the first six months of 2012, Aldar realised more than Dh7.4bn ($2.01bn) from property development, including the sale of land plots and residential units. Recurring revenues (from investment property rental income as well as income from other operating businesses) increased by more than 13% to Dh699m ($190.26m). The improvement was primarily due to the growing income of the operational businesses, hotels and schools. It must be noted however, that a significant portion of Aldar's overall top-line growth was due to the involvement of the Abu Dhabi government. Aldar earned a total of Dh5.85bn ($1.59bn) from the government, mostly through land and property sales as well as project management and rentals.

The bottom line for the interim was also supported by Aldar's effective cost management, which led to the decline in operating expenses by almost 14% to Dh418m ($113.77m), although overall direct costs increased, in line with added revenues.

Aldar's net assets (assets less liabilities) between end-2011 and end-June 2012 increased by 9% to Dh7.8bn ($2.12bn), as investment properties increased due to the completion of the retail sections of some investment properties (Al Bandar and Al Muneera). Trade receivables also expanded on the heels of the sale of development properties and some refundable costs to the Abu Dhabi government. During the previous interim Aldar also refinanced borrowings of Dh4.7bn ($1.28bn) and set in place a new Dh4bn ($1.09bn) revolving credit facility (of which Dh800m [$217.77m] has been drawn so far). As of end-June 2012, Aldar remains challenged with high financial leverage – it has a debt-to-equity ratio of more than 185%, versus its Middle East peer average of 62%.

**SHARE PRICE PERFORMANCE:** Shares of Aldar have rallied in 2012 after Abu Dhabi, the holder of most of the UAE's oil reserves, said it plans to resume some stalled projects, including branches of the Louvre and Guggenheim museums. Aldar's stock has surged by more than 38% year-to-date. Medium-term support is seen at Dh1.06 ($0.29), while resistance is seen at Dh1.48 ($0.40). Note that these sentimental barriers were spotted as of September 30, 2012 and were based on a closing price of Dh1.25 ($0.34) per share.

Share analysis & data provided by Al Ramz Securities

Etisalat price & index relative performance


Etisalat market ratios — Reuters code ETEL.AD

| PERFORMANCE | Data as of September 30, 2012 |
|---|---|
| Price (Dh) | 9.69 |
| Shares outstanding (bn) | 7.91 |
| Floated shares (bn) | 3.16 |
| Market cap (Dh bn) | 77.24 |
| MARKET RATIOS | |
| 30-day avg. value traded (m) | 148.56 |
| Price/book ratio | 1.90 |
| EV/EBITDA ratio | 10.22 |

# Emirates Telecommunications Corp.

## Telecoms

**THE COMPANY:** Emirates Telecommunications Corporation, or Etisalat, is a leading multinational telecoms operator, with a presence in 17 countries spread across the Middle East, Africa and Asia. With such a wide presence, Etisalat now has access to a population of more than 800m. Etisalat's international presence started in earnest in 2004 when it won its second mobile licence and first 3G licence in Saudi Arabia. The next several years would see the operator embark on widening its geographic reach and expanding its subscribers from 4m in 2004 to 172m by end-June 2012. In the UAE alone, Etisalat had approximately 6.8m mobile subscribers, 1.13m fixed-line subscribers and 780,000 internet subscribers as of June 30, 2012.

Etisalat has been a leader in technological advances (by providing next generation networks for both mobile and fixed line) and telecoms infrastructure (by constructing a fibre optic system that could stretch to the moon and back). Such expertise has enabled Etisalat to capture significant market shares in various geographic areas, most notably in the UAE, Egypt and Saudi Arabia. Etisalat is 60.03% owned by the UAE government through the Emirates Investment Authority (the investment arm of the UAE federal government focusing on international equities as well as on fixed-income markets) and 39.97% by the public.

**FINANCIAL PERFORMANCE:** Profits for the first half of 2012 rose close to 8% as domestic revenues were complemented by stronger growth in some of Etisalat's international markets. Revenue growth was mainly driven by customer acquisition and growth in the mobile data segment. While domestic revenues did see a bit of a decline year-on-year, revenues from international markets rose by almost 18%. Leading the growth was its African markets with revenues that rose 16%, Egypt with 15% growth and Asia at 10% growth. Following such encouraging profit numbers from its international operations, Etisalat will now focus on creating value in high-population, high growth markets that include Saudi Arabia, Egypt, Nigeria, Pakistan and Afghanistan.

Early in 2012 Etisalat announced that it would stop its mobile phone services in India, Etisalat DB, as part of the company's previous decision to move out of the country. Etisalat's decision came after the ordering of the Indian Supreme Court in February to cancel 122 licences for 2G phone services, which were issued to several companies in 2008, following complaints of irregularities in their allotment. Of these 122 licences, Etisalat DB held a total of 15.

Recently, Etisalat finalised the sale of its 9.1% stake (775m shares) in Indonesian mobile operator XL Axiata, capitalising on the recent rally in the latter's share price. The gross proceeds from the sale of the shares in XL Axiata mounted to Dh1.87bn ($508.98m). Etisalat retains a 4.1% ownership stake in XL Axiata.

As of June 30, 2012, Etisalat held Dh10.55bn ($2.87bn) in cash, and had tangible assets of Dh60.83bn ($16.56bn). Its credit ratings were affirmed by international ratings agencies Standard & Poor, Moody's and Fitch at AA-, Aa3 and A+, respectively. Etisalat is now the highest overall rated telecoms company in the GCC and the fourth-highest rated telco in the world.

**SHARE PRICE PERFORMANCE:** Year to date (YTD), shares of Etisalat are up by more than 5%, hitting a YTD high of Dh10.05 ($2.74) per share in June 2012. This coincided with the news of its investment grade rating affirmation by Fitch. Since hitting a low of Dh8.50 ($2.31) back in April, Etisalat's shares have gone up by 14%. Apart from the telco's strong credit ratings, speculations on the lifting of the current ban on foreign ownership as well as the announced sale of its 9% stake in Indonesia's Axiata supported investors' interest in the stock. The sale of Etisalat's stake in Axiata amounted to $510m. The telco plans to use the proceeds of the sale to finance its network expansion.

Over the medium term, Etisalat desires a support level of Dh8.50 ($2.31) per share. Resistance is seen at Dh0.25 ($0.07) per share. Note that these sentimental barriers were spotted as of September 30, 2012 and based on a closing price of Dh9.69 ($2.71) per share.

Share analysis & data provided by
Al Ramz Securities

FGB price & index relative performance


FGB market ratios — Reuters code FGB.AD

| PERFORMANCE | Data as of September 30, 2012 |
|---|---|
| Price (Dh) | 10 |
| Shares outstanding (bn) | 3.00 |
| Floated shares (bn) | 2.45 |
| Market cap (Dh bn) | 30.00 |
| **MARKET RATIOS** | |
| 90-day avg. value traded (m) | 70.50 |
| Price/book ratio | 1.11 |
| EV/EBITDA ratio | 4.51 |

# First Gulf Bank

## Financial services

**THE COMPANY:** Established in 1979 and headquartered in Abu Dhabi, First Gulf Bank (FGB) provides conventional and Islamic commercial banking services, including deposits, loans and credit cards; conventional and Islamic investment banking services, such as corporate finance and investment advisory on mergers and acquisitions, initial public offerings and underwriting; conventional and Islamic asset management services, including fund, portfolio and wealth management, and conventional and Islamic private equity investments. After a somewhat rocky start, FBG overhauled its management team in 2000 and now has a strategic alliance with Citibank.

FGB has a wide distribution network of branches in different business and industrial areas across the country. Its 19 branches are being served by a work force of nearly 900 in number (as of June 30, 2012). The cornerstone of FGB's growth strategy in the domestic market is to build up opportunities with strategic partners as well as with the key players of Abu Dhabi's Economic Vision 2030.

FGB is also currently one of the fastest growing banks in the region, with a presence in Qatar and Singapore, and representative offices in London and India. It has been part of FGB's growth strategy to focus on the key trade partner countries of the UAE as vehicles for international and regional expansion.

FGB is majority owned by the ruling family of Abu Dhabi, who have 67% of the overall shareholding. FGB has recently launched a $650m five-year bond, which is priced at a spread of 210 basis points over mid-swaps. This latest facility is issued under the bank's $3.5bn medium term notes programme. This issuance follows FGB's $500m *sukuk* (Islamic bond) that was issued in January 2012.

**FINANCIAL PERFORMANCE.** Attributable profits for the first half of 2012 increased by almost 11% at Dh1.95bn ($530.76m). The rise in FGB's profitability came on the heels of healthy credit volume growth. Loans, as of June 30, 2012, advanced by 6% to Dh110.95bn ($30.20bn). New loans were originated by a diverse clientele base comprising government related entities, private corporate and retail clients, in addition to the multinational customers booked locally and overseas. Deposits also advanced but by a slower rate of 1.26% to Dh104.77bn ($28.52bn). Revenues from conventional and Islamic banking improved by 8% to Dh3.72bn ($1.01bn), offsetting the decline in income from associates and joint ventures (which dropped by 38% to Dh7.10m [$1.93m]) and commission and fee-based income (the combined amount dropped by 10% to Dh515m [$140.17m]).

Despite the fact that the loan-to-deposits ratio at the end of June 2012 stood at 106%, the bank regulatory ratio of advance to stable deposit of 89% remained comfortably below the maximum allowance of 100%. At the same time, the liquid asset ratio was maintained at 12%. The bank has also started benchmarking its current liquidity ratios to the new one that will be implemented beginning in 2013 as per the new central bank regulations on liquidity. The ratio of non-performing loans to gross loans was 3.6% at June 30 against 3.4% at December 31, 2011. The capital adequacy ratio improved to a record 22% against 21.5% in the comparable period.

**SHARE PRICE PERFORMANCE:** The difficulties faced by European banks are translating positively for the local banks. As European banks retreat from the local credit market, local lenders like FGB benefit. With its 6% loan volume growth, FBG led the local banks in posting a positive loan growth in the first half of 2012. With such positive signals, investors seemed to increase their appetite for FGB, with share price rising by 27% from end June until September 25. The medium-term support for FGB stands at Dh9.20 ($2.50) per share, followed by Dh8.60 ($2.34). Resistance level is seen at Dh10.40 ($2.83) per share, then at Dh12.00 ($3.27). Note that these sentimental barriers were spotted as of September 30, 2012 and based on a closing price of Dh10.00 ($2.72) per share.

Share analysis & data provided by Al Ramz Securities

Sorouh price & index relative performance


Sorouh market ratios

Reuters code: SOR.AD

| PERFORMANCE | Data as of September 30, 2012 |
|---|---|
| Price (Dh) | 1.17 |
| Shares outstanding (bn) | 2.63 |
| Floated shares (bn) | 2.32 |
| Market cap (Dh bn) | 3.31 |
| MARKET RATIOS | |
| 30-day avg. value traded (m) | 13.87 |
| Price/book ratio | 0.47 |
| EV/EBITDA ratio | 12.05 |

# Sorouh Real Estate

## Real estate

**THE COMPANY:** Headquartered in Abu Dhabi Sorouh Real Estate (Sorouh) is one of the largest real estate developers in the UAE. Formed in July 2003 and formally incorporated as a public joint stock company on July 26, 2005 with capital of Dh2.5bn ($680.46m), Sorouh is now one of the largest real estate developers listed on the Abu Dhabi Securities Exchange.

In November 2007 Sorouh won the award for "Best New Business" at the inaugural Middle East Business Achievement Awards. The group has already launched a number of major development projects such as its flagship project, Shams Abu Dhabi, including Sky Tower – slated to be the highest skyscraper in Abu Dhabi – and the Golf Gardens residential development, adjoining the Abu Dhabi Golf Club.

Early in 2012 it was announced that Sorouh and Aldar were in talks for a potential $15bn merger that was supported by the federal government and would be the largest consolidation of listed property assets in Abu Dhabi. At present, a due diligence for the deal remains under way, with representatives from both companies claiming that the discussions regarding the potential consolidation are at an advanced stage.

As of August 2012, Sorouh's shareholding is divided into 18.59% by major shareholders (those with shareholdings of 5% and above) and 81.41% by minority shareholders. The majority shareholders of the company include Al Gouad Financial Investment Company and Abu Dhabi Investment Council.

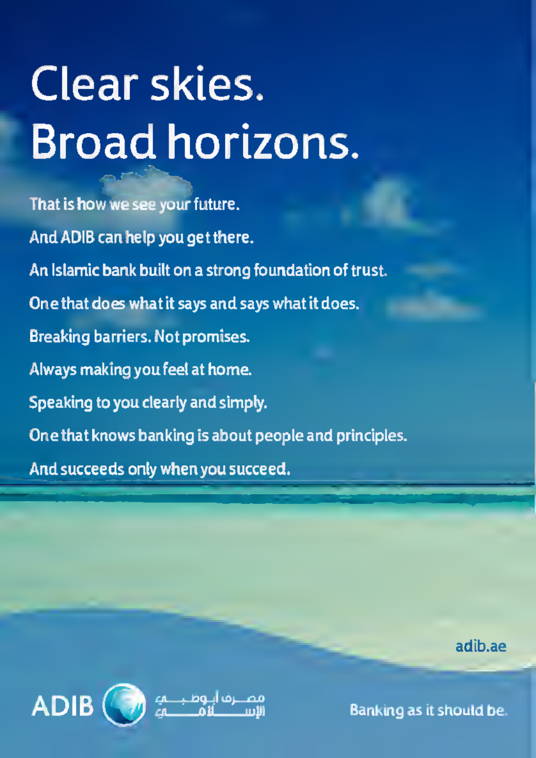
**FINANCIAL PERFORMANCE:** Profits for the first six months of 2012 went up by 33% to Dh232m ($63.15m) as Sorouh's cost savings and higher other income offset a slight drop in its top line.

Despite construction revenues from the national housing project of the Abu Dhabi government almost tripling to Dh1.32bn ($359.28m), total revenues dropped 1% to Dh1.65bn ($449.10m) while the revenues from development business plunged to Dh174m ($4.36m) from Dh1.02bn ($277.63m) previously. However, the softness in overall revenues was offset by Sorouh's effective cost management. Direct costs dropped by over 5% and financing costs decreased by 66%. Other income (mostly transfer, commission and management fees, and the income from the release of contingencies and provisions that are no longer required on completed projects) surged by 110% to Dh91m ($24.77m).

Going forward, Sorouh expects its recurring income to increase as it opens a mall in Al Ain (sometime in the last quarter of 2012). It will also hand over the Al Rayyana housing project soon and expects to deliver 375 apartments in a building it bought from Tamouh, another Abu Dhabi developer. The developer plans to deliver 9300 housing units in 2012 and in 2013, including 2300 in projects for UAE nationals.

Sorouh's total assets remained firm at Dh14.1bn ($3.84bn). Its investment properties appreciated to Dh4.03bn ($1.10bn) from Dh3.31bn ($900.24m) as of end-2011 following higher expenditure on the Al Rayyana development and the completion of Boutik Al Ain. Liquid funds decreased – dropping to Dh1.12bn ($304.84m) from Dh1.84bn ($500.82m) – as collections from the delivery of units in the Sun and Sky Towers as well as from investment properties and plot receivables were offset by the payments made for development projects. Despite this, Sorouh has maintained its low-gearing status at 42% (compared to the property sector's average ratio of 62%).

**SHARE PRICE PERFORMANCE:** Shares of Sorouh have rallied in 2012 after Abu Dhabi, holder of most of the UAE's oil reserves, said it plans to resume stalled projects, including branches of the Louvre and Guggenheim museums. Its shares have surged by more than 39% year-to-date, and are looking at a medium-term support of Dh1.02 ($0.28) per share, with a strong support seen at Dh0.93 ($0.25). Resistance levels are seen at Dh1.30 ($0.35) and Dh1.42 ($0.39) per share. Note that these sentimental barriers were spotted as of September 30, 2012 and based on a closing price of Dh1.17 ($0.32) per share.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# Islamic Financial Services

Two local banks compete with other UAE institutions
Domestic takaful market still has room to develop
Mutual funds and sukuks garnering investor attention
Growth strategies include overseas expansion

The emirate is home to two of the top three Islamic banks in the UAE

# Regional leader

## The emirate is one of the top names in sharia-compliant finance

The two local lenders are part of a large and competitive GCC-wide market. Islamic banks accounted for almost one quarter of total GCC banking assets in 2010.

A significant proportion of the UAE's Islamic financial services (IFS) sector is based in Abu Dhabi. Home to two of the three largest Islamic banks in the country, three of its most successful *takaful* (Islamic insurance) firms and a multitude of sharia-compliant investment funds, the emirate is also emerging as an important regional centre of Islamic financing.

**MARKET STRUCTURE:** Abu Dhabi's two sharia-compliant lenders operate within a rapidly evolving, multi-layered market. At the regional level, the GCC Islamic banking sector has experienced a decade of development which has seen it emerge as the fastest-growing segment of the finance industry. According to the IMF, Islamic banks accounted for 24% of total GCC banking assets in 2010.

The intervening years have brought double-digit growth in the sector, fuelled by regional economic expansion and a rising appetite for sharia-compliant products, particularly from the retail segment. According to a recent report by professional services firm Ernst & Young, by the start of 2011 Islamic banking activity accounted for 26% of the GCC banking market, with more than 40 Islamic banks competing for business across the region.

**DOMESTIC COMPETITION:** Eight of these banks are situated within the UAE, making up a domestic market that represents a second level of competition for Abu Dhabi's two Islamic banking institutions, Abu Dhabi Islamic Bank (ADIB) and Al Hilal Bank. Dubai is home to the largest concentration of Islamic banks in the UAE, comprising Dubai Islamic Bank, Emirates Islamic Bank, Noor Islamic Bank and Dubai Bank, although the latter was taken over by the leading retail banking franchise in the UAE, Emirates NBD, in late 2011. Sharjah Islamic Bank and Ajman Islamic Bank, meanwhile, offer sharia-compliant financing from their respective emirates as well.

IFS firms operate on a national basis, with the same regulations across all emirates. The UAE's institutions also compete with conventional banks' Islamic subsidiaries.

Excluding Dubai Bank, the combined assets of the UAE's sharia compliant banks totalled Dh257.22bn ($70.02bn) at the close of 2011, according to their fiscal year (FY) financial statements, of which Abu Dhabi's sharia-compliant banks accounted for Dh107.16bn ($29.17bn), or 41.7%.

**EQUAL FOOTING:** The UAE's Islamic banks operate on a border-free basis within the country and compete for business with each other on equal terms under a unified regulatory structure. While branch networks are generally weighted to their home emirates, all of the nation's sharia-compliant banks maintain a presence across all UAE jurisdictions. Dubai Islamic Bank, for example, operates 32 branches in its home emirate, but also nine in Abu Dhabi and a further 27 across the emirates of Sharjah, Ras Al Khaimah, Ajman, Umm Al Quwain and Fujairah.

Islamic banks in the UAE also compete on equal terms with 43 conventional counterparts, many of which operate Islamic windows or subsidiaries. As of March 2012, 23 domestic banks operated 794 branches across the UAE, according to the central bank, as well as six GCC banks (with a branch each) and 22 foreign banks (with a main branch each and a further 82 additional units). Abu Dhabi's Islamic banks therefore face direct competition from conventional multinationals with sharia-compliant subsidiaries, such as HSBC Amanah, as well as local

**Key indicators for local Islamic banks, 2010-11**

| | | Al Hilal | ADIB |
|---|---|---|---|
| Total assets (Dh bn) | 2010 | 25.8 | 75.3 |
| | 2011 | 28.3 | 74.3 |
| Financing (Dh bn) | 2010 | 15.3 | 45 |
| | 2011 | 19.5 | 48.8 |
| Deposits (Dh bn) | 2010 | 15.1 | 55.5 |
| | 2011 | 19.6 | 55.2 |
| Net profit (Dh m) | 2010 | 133.5 | 1023.6 |
| | 2011 | 202.3 | 1155.1 |
| ROE | 2010 | 7.8% | 18.2% |
| | 2011 | 8.9% | 18.2% |

SOURCE: Company reports

giants such as National Bank of Abu Dhabi's (NBAD) Islamic banking division and its finance firm, Abu Dhabi National Islamic Finance (ADNIF).

**LARGEST PLAYER:** With total assets of Dh74.3bn ($20.22bn) at the close of 2011, ADIB is the largest sharia-compliant bank based in the capital and the second largest in the UAE. It is also one of the older players in the industry, having received its licence from the central bank in 1997. Two years later it listed on the Abu Dhabi Securities Exchange (ADX).

Today, the bank is majority-owned by members of the ruling family through a 40% stake held by the private holding company Emirates International Investment Company (EIIC) and a 10.1% stake made up of Abu Dhabi royal family members and associates. EIIC remains actively involved with the bank's management, while more quasi-sovereign backing comes from stakes held by the UAE General Pension and Social Security Authority (2.3%) and Abu Dhabi Investment Council (7.6%). From 2001 to 2007 ADIB diversified in terms of both activity and geography, establishing the Abu Dhabi Islamic Securities Company and the real estate operation Burooj Properties in 2005, and in 2007 acquiring 49% of Egypt's National Bank for Development. In 2008 the arrival of a new management team marked the beginning of an added period of growth, and the implementation of an updated strategy, which sought to capitalise on the aforementioned diversification and external expansion it had completed (see analysis).

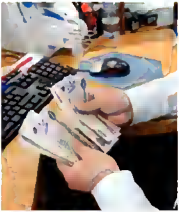
**ANOTHER JOINS IN:** After a decade as the sole Islamic lender based in Abu Dhabi, ADIB was joined in 2008 by Al Hilal Bank, a public joint stock company which is wholly owned by the Abu Dhabi Investment Council, an investment arm of the Abu Dhabi government. Operations began in June 2008 with an authorised capital of Dh4bn ($1.09bn), and in the short time since the bank has established a network of 24 branches (compared to ADIB's 73) and 117 ATMs (compared to ADIB's 500).

As with ADIB, Al Hilal has pursued a strategy of establishing itself as a platform for diverse sharia-compliant financing activities. In 2008 it established Al Hilal Takaful, while in 2009 operations at Al Hilal Auto, a vehicle financing entity, commenced. The bank's strategy also incorporates the expansion of its geographical footprint, although it has chosen a different market for its first foreign venture: in 2010 Al Hilal Islamic Bank Kazakhstan officially opened for business, establishing Al Hilal as the first Islamic bank in the hydrocarbons-rich and predominantly Muslim state. With total assets of Dh28.3bn ($7.7bn) at the close of 2011, Al Hilal is the second-largest Islamic player in Abu Dhabi and the third largest in the broader UAE.

**GCC takaful contributions, 2008-10 ($ m)**

| | 2008 | 2009 | 2010E |
|---|---|---|---|
| Bahrain | 71 | 87 | 102 |
| Qatar | 128 | 135 | 260 |
| UAE | 542 | 540 | 818 |
| Kuwait | 101 | 128 | 133 |
| Saudi* | 2911 | 3896 | 4370 |

SOURCE: Ernst & Young *Includes cooperatives


Key indicators have shown both local players to be solid

The first Islamic bank in the emirate was licensed in 1997, and the second came to the market a decade later. Both have recorded strong performances over the past few years.

**PERFORMANCE:** Both of Abu Dhabi's Islamic banks have equipped themselves well for the challenging economic environment that has prevailed since the onset of the global economic crisis. ADIB's recent trajectory of growth can be traced back to its change of management in 2008. Using the 2007 financial year as a benchmark, by the close of 2011 it had increased its total assets by approximately 10%, its customer deposits and financing by 13% each, and its capital resources by around 11%. The positive progression of its financial performance is reflected in its profitability data: over the same period revenues increased by 24%, net profit was up 11% and, apart from a dip in 2008 and 2009, return on equity (ROE) has remained above 18%.

The FY 2011 saw a slight decline in assets and customers' deposits as a result of deleveraging and derisking activity, but by the second half of 2012 the upward trend across key indicators had been restored: Total assets grew from Dh74.3bn ($20.22bn) at the close of 2011 to reach Dh78.9bn ($21.48bn; up 6.2%), customer financing rose from Dh48.8bn ($13.28bn) to Dh50.3bn ($13.69bn; up 3.1%). Net profit, which expanded from Dh1.02bn ($277.65m) to Dh1.16bn ($315.75m; up 13.7%) for the 2011 FY, continued to rise in 2012 to show 16% growth in group net profit during the first half of the year.

This has been achieved while maintaining a strong capital base: capital adequacy stood at 16.6% in the second quarter of 2012, comfortably above the central bank's capital adequacy ratio requirement of 12%. Within this figure, tier 1 capital accounted for 13.5%, as against the central bank's minimum tier 1 requirement of 8%. On the liquidity side, a liquidity ratio (liquidity as a percentage of an institution's total assets) of 24% or more has been maintained

There are five takaful providers based in the emirate: three dedicated insurers and the takaful subsidiaries of the two Islamic banks

since the second quarter of 2008, and stood at 25.2% in the same period of 2012.

Al Hilal, in its second annual report since its inception, also showed positive growth across key indicators. Total assets reached Dh8.3bn ($2.26bn) as of the close of 2011, an increase of 9.5% over 2010, while financings reached Dh19.3bn ($5.25bn), an expansion of 26.2% over the previous year. In terms of profitability, its total revenues rose by 24.2% to Dh1.7bn ($462.74m), while net profit grew by more than 50% year-on-year to reach some Dh202.3m ($55.07m). Al Hilal's ROE, meanwhile, jumped 1.56% to reach 8.94%, and pushing this figure upwards is one of the central aspirations of an overall strategy finalised earlier in 2012 (see analysis). The infrastructural expansion of Abu Dhabi's second Islamic financier also continues apace: two new local branches and one more in Kazakhstan brought the total to 24 at the close of 2011, while 22 ATMs were added to a system that now counts 117 machines.

**NPAS:** Like all banks in the region, ADIB has seen an uptick in non-performing assets (NPAs) since the economic crisis, but this trend showed signs of having reached a plateau during the second half of 2011. By the end of the first half of 2012, NPAs had decreased by Dh318m ($86.56m) on the start of the year, to reach Dh5.67bn ($1.54bn). "We are not seeing new entrants into the non-performing category. Just a deterioration of existing cases," Andrew Moir, global head of strategy and finance at ADIB, told OBG. "We have worked with customers that have recovered, but it will take a while. I think we are probably two years from recovery."

Similarly, Al Hilal saw NPAs and impaired assets increase over the last financial year, from Dh50.4m ($13.72m) at the close of 2010 to Dh106.5m ($28.99m) for FY 2011, although with a total cover of 220% the bank maintains adequate coverage of its non-performing financing.

**TAKAFUL:** Along with its thriving Islamic banking segment, Abu Dhabi also contributes to a global takaful industry, which expanded 19% to reach a value of $8.3bn in 2011, according to the Ernst & Young "World Takaful Report 2012".

The takaful industry has existed in the UAE since the mid-1990s and, like its conventional insurance counterpart, expanded rapidly in the years leading up to the global economic crisis on the back of the nation's rapid economic and infrastructural development. Between 2005 and 2009 the domestic takaful market grew at a compound annual growth rate of 98%, according to Ernst & Young and, despite the more challenging environment that prevails today, enjoys with the wider insurance sector considerable potential for future growth (see Insurance chapter).

**MORE TO THE MARKET:** The takaful subsidiaries of ADIB and Al Hilal form part of Abu Dhabi's sharia-compliant insurance landscape, but the emirate has also produced a number of dedicated providers. For example, Abu Dhabi National Takaful Company, established in 2003, is the oldest of the locally based, dedicated takaful firms. It is also the largest, with Dh405.9m ($110.48m) in total assets at end-2011. Listed on the ADX in 2005, Abu Dhabi National Takaful Company's operations cover the entire UAE, with offices in Abu Dhabi, Dubai, Al Ain and Sharjah.

In 2008 it was joined in the local market by Methaq Takaful Insurance Company, which, with total assets of Dh2.27bn ($61.79bn), is the second largest of the emirate's takaful providers. After its 2008 ADX listing, real operations began in 2009 through its Abu Dhabi office, since which time it has established further branches in Dubai, Ras Al Khaimah and Al Ain.

Rounding out the local market is Watania, established in 2011 with a paid-up capital of Dh150m ($40.83m). The new entrant listed on the ADX in November 2011, with major shareholders including Abu Dhabi National Insurance Company, ADNIF, Abu Dhabi National Energy Company and ALDAR Properties. Watania currently operates out of its head office in Abu Dhabi, and at the close of 2011 recorded total assets of some Dh147.5m ($40.15m).

All three of Abu Dhabi's takaful providers offer products across the corporate segment such as property, construction and engineering, marine, motor and employee benefits; small and medium-sized enterprise segment such as contents, employer's liability, public/third-party liability, business interruption and machinery, and individual segment such as accident, health, travel, motor and home.

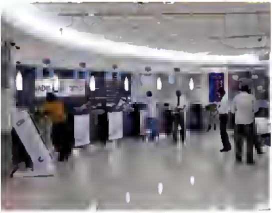
In doing so, they compete in a wider UAE market in which three Dubai-based, dedicated takaful providers also vie for business. Of these, Islamic Arab Insurance Company is the industry giant, with total assets of Dh4.7bn ($1.28bn) at the close of 2011, followed by Dar Al Takaful at Dh144.8m ($39.4m) and Takaful Al Emarat with $117.5m ($31.98m).

**MUTUAL FUNDS:** As Abu Dhabi's banks and takaful operators expand their businesses and enter new markets, the IFS sector is deepening. According to data gathered by NBAD, 27% of the 89 mutual funds in the UAE were operated according to the principles of sharia, accounting for around 36% of the $876.9m of assets under management (AuM). Nine of these were locally incorporated while 24 were locally sponsored funds domiciled abroad.

Abu Dhabi is also playing a prominent part in the UAE's Islamic fund activity. NBAD's UAE Islamic Fund, with AuM totalling $32m, is the largest sharia-compliant fund domiciled in the country in terms of assets. The potential for future Islamic fund activity in the emirate is substantial. The GCC accounted for just over half (51.6%) of global sharia-compliant fund assets as of December 2011, according to NBAD, and Saudi Arabia and Bahrain have established themselves as the largest fund centres in the region. However, the expansion of Islamic banking activity in Abu Dhabi led by ADIB and Al Hilal, combined with the robust performance of the UAE's economy and the growing depth of Abu Dhabi as a financial centre, mark the emirate out as a potential location for future Islamic fund growth.

**SUKUKS:** Demand for new investment products has also driven a rise in the *sukuk* (Islamic bond) market in the UAE since 2003. After a drop in issuance levels during 2008 and 2009 as the global economic crisis reduced investor appetite across the region, Abu Dhabi led a recovery in 2010, of which the centrepiece was a $750m sukuk issued by ADIB – the largest corporate issuance of the year to emerge from the emirate, and oversubscribed by 4.8 times.

The global sukuk market continued to recover in 2011, with issuances rising to $32.6bn, up from $14bn in 2010, according to Dealogic. The UAE was the second-largest contributor to the total in 2011 behind Malaysia, generating $2.6bn in issuances. Abu Dhabi's largest corporate contribution to this came from First Gulf Bank, which offered a five-year, $650m note in August 2011 for a margin of 3.80%.



Investment products are being added to complement retail and corporate offerings

Demand for Islamic mutual funds is rising, with sharia-compliant funds accounting for 27% of the UAE's total of 89. Those Islamic mutual funds accounted for 36% of the total assets under management.

**OUTLOOK:** Abu Dhabi's Islamic banks have made public their intention to continue expanding at home and abroad, and their strong performances over 2011 will facilitate this. ADIB has reportedly applied for several foreign licences and an announcement regarding further overseas expansion is likely. Both banks continue to face the challenge of non-performing assets, yet have the resources to do so without a weakening of their balance sheets. Regulatory changes particularly relating to the retail segment, form another issue, and a pipeline of proposed reforms suggests that this area will remain one to watch for the medium term (see Banking chapter).

Abu Dhabi's takaful players also face potential challenges as a result of regulatory reform, particularly with regard to new solvency standards (see analysis). However, a low penetration rate and increasing awareness of insurance products' utility shows the potential of the domestic takaful market.

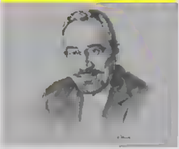
Both banks and takaful providers, meanwhile, will continue to benefit from the ongoing economic expansion across the UAE and the steady procession of infrastructural projects generated by Plan Abu Dhabi 2030 and the wider Economic Vision 2030.

**Major UAE corporate sukuk issuances, 2011**

| Issuer | Name | Currency | Tenor (yrs) | Maturity date | Issue size ($ m) | Margin | Sector |
|---|---|---|---|---|---|---|---|
| Emaar Properties | EMAAR S _ 08/16 | $ | 5 | 3-Aug-16 | 500 | 6.50% | Real estate |
| HSBC Middle East | HBME Sukuk Co | $ | 5 | 2-Jun-16 | 500 | 3.58% | Financial services |
| Sharjah Islamic Bank | SIB 4.725 05/15 | $ | 5 | 25-May-15 | 400 | 4.72% | Financial services |
| ANKA A Sukuk* | ANKA A Sukuk | Dh | 5 | 25-Aug-16 | 1034.50 | 10.00% | Real estate |
| First Gulf Bank | FGBUAE 3.797 16 | $ | 5 | 2-Aug-15 | 650 | 3.80% | Financial services |

SOURCE: Markaz Research

*Subsidiary of Nakheel



Tirad M Mahmoud, CEO, Abu Dhabi Islamic Bank

# A higher authority

## OBG talks to Tirad M Mahmoud, CEO, Abu Dhabi Islamic Bank

**To what do you attribute the relative resilience seen in the Islamic financial services sector in the wake of the global economic slowdown?**

**MAHMOUD:** Islamic banks comply with a number of laws in the countries in which they operate as well as with the regulations and values based in religion. Generally speaking, sharia-compliant banks have targeted businesses that are connected to the real economy. These include trade, development, housing programmes, infrastructure and other assets that are part of the long-term economic development cycle. The risks that Islamic banks take are reduced or lessened because they are attached to normal economic activity, they are not part of speculative activities. Islamic banks steer clear of these activities and thus avoid some of the troubles conventional institutions have faced recently.

**Do you anticipate demand for Islamic financial services in the UAE outpacing traditional banking services in the coming years?**

**MAHMOUD:** In light of what has happened with the global financial crisis, businesses are taking stock and listening to clients' demand for morally sound practices. Islamic banks are well suited to cater to this gap in the market. If this business model is more successfully publicised, then demand for sharia-compliant banks and their services will increase dramatically and outpace conventional banks. People are interested in aligning themselves with things that do not conflict with their values. The world wants sustainability, transparency and basic values to govern this industry.

**What role could securitisation play in Islamic finance and what lessons can be drawn from past mistakes?**

**MAHMOUD:** Risk participation agreements are something Islamic banks have done from the beginning, and are a fundamental driver for any banking business. Securitisation means you have packaged something for the purpose of selling it. If a bank packages a product they are not prepared to buy themselves, then there is something fundamentally wrong. Sharia-compliant banking dictates products must benefit both parties.

The economic crisis of 2008 can be attributed to banks acting only in their self interest. This factor has brought about a financial disaster for investors, shareholders, depositors and even regulators. A major benefit of Islamic banking is that this sort of behaviour is not allowed, since the rules that govern Islamic banking are not created by a CEO, but are made by laws derived from religion and from other regulations. Islamic financial institutions will always be governed by the strictest principles of those rules.

**What steps need to be taken to further deepen the Islamic debt (*sukuk*) markets?**

**MAHMOUD:** The sukuk market is being used more frequently because sharia-compliant bonds were more resilient during the crisis. To deepen the markets, sovereign sukuks need to be issued as a primary instrument; this is the missing link. Some investors are more attracted to sovereign financial instruments due to their lower capital allocation, low-risk nature and other technical issues. If sovereign issues continue, there will be a wider and deeper sukuk market.

**To what extent will there be greater standardisation of sharia-compliance guidelines as cross-border financial transactions increase?**

**MAHMOUD:** Many people would like to have sharia regulations simplified but this is not easy. Interpretation of Islamic religious laws can be more flexible in one school of thought than another, but no one law can overwrite another. Sharia rules around the world have similar fundamentals which are interpreted differently as a result of these different schools of thought. There is sufficient diversity, which in turn brings more flexibility into Islamic financial products and services. There will likely be convergence between the two models from Malaysia and the GCC as time goes on, but this evolves naturally over time, building from experience.

Local players are broadening their range of products and services

# Getting to the top

## The emirate's Islamic banks are implementing expansion strategies

A measure of the success of Abu Dhabi's Islamic banks is that both of them have managed to position themselves within the top three UAE sharia-compliant lenders in terms of assets: Abu Dhabi Islamic Bank (ADIB) saw its total assets increase by some 45% between 2008 and 2011, to reach Dh74.3bn ($20.22bn); meanwhile, the market's newcomer Al Hilal recorded a 9.5% rise over 2011 to close the year with Dh28.3bn ($7.7bn), moving up one place from fourth in the UAE-wide rankings.

**STRATEGY:** Their success is part of a trend that saw the UAE Islamic banking segment grow from 6% of the total banking sector in 2000 to around 22% in 2010. The trajectory continues into the current decade as sharia-compliant lenders diversify their offerings and expand their exposure to the retail segment.

The rapid growth of Abu Dhabi's Islamic banks also raises some interesting questions about strategy: whether to focus on consolidation in the home market, for example, or take advantage of subdued asset prices in foreign markets – or a combination of both. While banks are, as a rule, guarded regarding the details of their expansion plans, what is known of ADIB and Al Hilal reveals what might be considered a general similarity with a geographical divergence.

**ADIB'S PILLARS:** The senior of the two Abu Dhabi-based lenders, the largest sharia-compliant bank in the emirate and the second largest in the UAE, ADIB established its current expansion plan in 2008. The strategy is built around three pillars, the first of which is to embed itself as a market leader in the UAE by developing its primary customer service sectors – private, personal business and wholesale banking – as well as the supporting activities of transaction banking, treasury, cards, investment banking and wealth management. Building up a physical retail presence also forms part of the first pillar, as does a greater focus on customer services. In 2011, the bank increased its branch network to over 70 units and relaunched a private banking business that previously had a limited range of services for high-net-worth individuals. The refurbished unit aims to establish itself as a fully fledged private banking operation.

The second pillar of ADIB's strategy is to create an integrated financial services group and capitalise on the synergies and efficiencies to be found within its diversified offerings. The bank currently operates a real estate management and advisory arm (Burooj), a sharia-compliant insurance unit (Abu Dhabi National Takaful Company) and brokerage services (through ADIB Securities). The acquisition in early 2012 of a 51% stake in sharia-compliant consumer financing outfit Saudi Instalment House can be seen in the light of this part of the overall strategy.

**LOOKING ABROAD:** The final pillar as defined by ADIB is the pursuit of international opportunities. For Islamic banks, the past decade has seen an opening of potential new markets in line with the growing acceptance of sharia-compliant financing. Replicating its business model through systematic geographic expansion represents a useful route to growth for the bank.

ADIB's international expansion began in Egypt with the acquisition of 49% of the National Bank of Development. The commercial lender was founded in 1980 with a mandate to assist in developing the private sector by supporting start-ups and providing finance to targeted sectors. Its purchase brought ADIB 70 branches distributed across all of Egypt's governorates. As part of the ADIB group, the institution has been converted into a sharia-compliant lender, servicing a spectrum of clients from consumer to corporate.

A foray into the Algerian market followed the Egyptian move, but has since been rolled back. Instead, ADIB has focused its efforts in Iraq, where it became the first financial institution from the UAE to receive a full operations banking licence from the Central Bank of Iraq. In July 2012 it announced the opening of its first fully fledged branch in Baghdad. In doing so, it established itself as a conduit for UAE and GCC investment into the country. The first phase of its

The local Islamic banks are expanding their networks both at home and abroad

local market strategy involves it offering corporate finance, investment banking and treasury products, as well as traditional commercial banking services such as international trade finance, to the market.

The formation of ADIB's strategy predates the global economic crisis, and the intervening period – which also saw its Egyptian operation exposed to a period of political unrest – has allowed it to test the plan's robustness. To date, the bank finds no need to alter it. "Our plan allowed us to navigate our way through a turbulent region in last 18 months, and we showed positive growth throughout. Importantly, it allowed us to deal with legacy issues which the environment revealed. Our strategy therefore remains intact – it's applicable and appropriate," Andrew Moir, the global head of strategy and finance at ADIB, told OBG.

**CATCHING UP:** As a relatively new entrant to the market, Al Hilal has not had as much time to develop and deploy its expansion strategy. In its second annual report, Al Hilal's CEO, Mohammed Jamil Berro, described 2008-10 as the bank's period of infancy and announced that its first strategic objectives, which are to capture a sizeable portion of the UAE Islamic banking market and establish a profit within the first three years of operation, had been achieved. Berro said 2011 saw the bank enter the initial phases of its maturity, and it was a year in which the bank "gained greater traction, became more robust and scalable, and ready for our next strategic milestones".

In the early part of 2012 the bank finalised its medium-term plan, another tripartite approach, this time built around "prioritising growth, health and development to enable the bank to capture greater market and revenue share in the coming years," Nabil Mushawar, the executive vice-president of finance and strategic planning at Al Hilal, described to OBG how these aspirations translate into action: "Regarding growth and performance, we want the highest return on equity for our shareholders as a first priority. The health aspect of the plan is about building solid infrastructure, which covers all aspects of our business, such as our IT systems or our human capital. The development part of our plan is about developing our business, looking for business opportunities, of which there are many. Islamic banking is still growing fast." Indeed, like ADIB, Al Hilal has sought to sell a diverse range of sharia-compliant products to the domestic market. In 2008 the group launched its sharia-compliant insurance operation (Al Hilal Takaful) with a capital of Dh100m ($27.22m), while in the following year it established a dedicated motor vehicle financing operation, Al Hilal Auto.

Al Hilal's rapid rise since its opening has brought the question of foreign expansion to the fore at an early stage. As with ADIB, the desire to move into other markets is tempered by the need to firmly establish its position in the domestic sector. "A bank of our age should not expand too much before consolidating its position in the home market," Mushawar said.

**AT THE FRONTIER:** Nevertheless, Al Hilal has already made an interesting foreign entry that has established it as a first mover into one of the world's frontier Islamic markets. Al Hilal Bank Kazakhstan is the bank's first international expansion, and with its opening of a branch in 2010 it became the first Islamic bank to operate in the country. The bank has corporate and retail services, as well as sharia-compliant products for small and medium-sized enterprises. By 2012 had opened its third branch in the city of Shymkent. In an echo of ADIB's role in Egypt, Al Hilal Kazakhstan's mission statement includes the facilitation of UAE investment in the country.

**LOOKING OUTWARD:** The geographical expansion of Abu Dhabi's two Islamic lenders is likely to continue, although their next steps remain unclear. "We are looking at other foreign markets, but we can't reveal them yet," Mushawar said. ADIB, whilst affirming that its third pillar policy of international expansion remains in place, was similarly taciturn. Indeed, 2013 may bring some interesting new developments regarding the geographical footprints of these two institutions.

The domestic financial services market has plenty of potential

# Insurance

**Despite rapid expansion, there remains room to grow**
The sharia-compliant sector sees great demand
New regulations are aimed at protecting consumers
All residents are covered under universal health care





Federal oversight of the sector is provided by the Insurance Authority

# Balancing act

## Managing growth in uncertain times

With 61 insurance companies operating within its borders, Abu Dhabi offers a wide array of coverage from life assurance to sharia-compliant options

Local insurers have weathered a turbulent two years during which they have been compelled to make the transition from an era of rapid economic expansion to one of more muted growth. Their performance over 2011 suggests that their efforts to date have been successful: bottom-line expansion has been achieved with modest top-line gains, and the sector has met the challenge of decreasing investment income while continuing to show healthy profit. These achievements account for the air of optimism that currently prevails within the emirate's insurance community.

**MARKET STRUCTURE:** Abu Dhabi's insurers are situated within a wider national market comprised of 61 insurance companies, 34 of which are domestic institutions. Local insurers compete freely for business with well-known brands, such as RSA and AXA, although they retain a minor advantage over the offshore players in that the current regulatory regime does not allow UAE property coverage to be written outside of the country. The large number of institutions serving a relatively small population of 8.2m people, according to the National Bureau of Statistics, makes for a fragmented market, although there is a discernible segmentation of business. Two foreign and 11 national companies work in life assurance, fund formation, operations insurance, and property and liability insurance according to a 2010 report from the Insurance Authority (the federal insurance regulator in terms of licensing), conduct of business and prudential supervision. Meanwhile, foreign firms tend to specialise in life insurance: eight of them operated exclusively in the life assurance and funds segment, compared to just two local firms in those areas.

The market is served by 11 insurance agents and 170 insurance brokers, of which 163 are national and seven are foreign. The introduction of new regulations on brokerage activity in the UAE resulted in a 20% decrease in brokers between 2008 and 2010, as those that did not comply with a new capital adequacy limit had their licences revoked. Rounding out the sector are 20 insurance consultants, 70 loss adjusters and 26 actuaries.

**POSSIBLE CONSOLIDATION:** The fragmented nature of the sector and the challenging business environment that has prevailed since the global economic crisis have led to speculation regarding possible consolidation in the market. While the anticipated mergers have yet to take place, a programme of regulatory reform is expected to encourage it in the medium term. "There is no sign of consolidation yet, but it is important that somebody encourage some companies to merge. Naturally, this is difficult, but when the new regulations regarding solvency kick in, it will happen automatically," Fareed Lutfi, secretary-general of the Emirates Insurance Association, told OBG. Meanwhile, the Insurance Authority froze the issuances of new licences since 2009, although it has since made two exceptions for sharia-compliant, or *takaful*, companies that have launched in Abu Dhabi.

**MARKET CHARACTERISTICS:** The most salient market characteristic of the Abu Dhabi insurance industry, as well as that of the wider UAE, is a propensity to cede premium to reinsurers. In this, the market follows a Gulf trend that saw an aggregate of 40% of non-life premiums originating in the GCC directed to reinsurers in 2011, according to the Qatar Financial Centre's 2012 "GCC Reinsurance Barometer".

However, larger insurers in the region have displayed a greater appetite for retaining risk in recent years and have begun to raise their retention ratios accordingly. Abu Dhabi-based insurers are no exception, and an OBG assessment of the largest four local players' premium showed that they ceded an aggregate 52.85% of their gross written premium (GWP) in 2011 compared to 56.9% in 2010 (see analysis). This trend will likely continue as technical ability grows and balance sheets strengthen due to the improving economic backdrop and regulatory reforms.

The UAE market is also relatively under-penetrated in relation to other emerging markets. According to "World Insurance 2011", a report by Swiss reinsurer Swiss Re, premiums stood at 1.8% of GDP in 2011, compared to Jordan's 2.2%, Bahrain's 2.4% and Thailand's 3.4%. This

is partly explained by an historical reliance on non-life, particularly big-ticket business in general lines such as the maritime, property and accident segments, a phenomenon that reflects the status of Abu Dhabi and Dubai as transportation hubs with a steady pipeline of infrastructure development.

"The industry should do a better job presenting the need and function of insurance by continually educating the market," Oussama A Kaissi, the CEO of Watania, an Abu Dhabi-based takaful operator that was founded in 2011. "There are many opportunities for growth as per capita premiums in the UAE are still quite low compared to more mature markets."

However, recent years have seen an expansion of the life business, driven initially by foreign firms and then by local players seeking to diversify their revenue streams. In 2006, according to Insurance Authority data, life assurance accounted for 23% of the total premium; by 2010 its take had risen to 34.2%.

"Life insurance is a key line of business that can give a needed boost to the entire industry," Kaissi of Watania told OBG. "At the same time, it is difficult to grow this business given the demographics of the country; a high expatriate population means that people are more mobile and wish to transfer their policies to their home countries. This presents a challenge that the industry is trying to overcome."

**THE PLAYERS:** The Abu Dhabi market is led by the nation's second-largest insurer, the Abu Dhabi National Insurance Company (ADNIC), which in 2011 had assets of $3.7bn. The company in which the Abu Dhabi government holds a 23.8% stake, has been a market leader since its inception in 1972. In 2011 it retained its preeminent position with a GWP of Dh2.1bn ($571.6m), around four times that of its nearest local competitor, while retaining the strong financial rating of "A" in 2010 and 2011 from both Standard & Poor's (S&P) and AM Best ratings agencies. Although ADNIC has in the past focused on large hydrocarbons and construction projects, it has more recently emphasised consumer lines, such as travel and health insurance.

With total assets of Dh1.6bn ($435.5m), Al Ain Ahlia is the second-largest insurer in the emirate. Established in 1975, it has followed a similar trajectory to ADNIC in its diversification away from large commercial projects to a wider array of insurance which now include motor, health, life and property, as well as its traditional offerings in marine, energy and aviation. Rated "A3" by Moody's with a stable outlook, the company took in a GWP of Dh503.8m ($137.1m) in 2011. As of 2012, the government retains a 20% interest in the company.

The third-largest insurer operating out of Abu Dhabi, with total assets of Dh1.5bn ($408.3m), is the Emirates Insurance Company (EIC), a non-life firm in which the government retains a 12% stake. Just five years ago its footprint was limited to its offices in Abu Dhabi and Al Ain, as well as small operations in Dubai and Jebal Ali. However, over the intervening period the firm has expanded into the Northern Emirates, adding two branches in Dubai and one in Sharjah, as well as smaller outlets in Umm Al Quwain and in Abu Dhabi. More


Historically, general lines like property and accident have been key

outlets are planned for the Al Gharbia region in 2012. In 2011 EIC had a GWP of Dh643.1m ($175.1m) and retained its "gcAA" rating from S&P's regional accreditation system. In late 2011 AM Best rewarded its history of technical profitability with an "A-" rating.

Of insurers in which the government does not hold a share, the largest is the Al Khazna Insurance Company which posted total assets of Dh1.1bn ($299.4m) at the close of 2011. Together with Al Wathba National Insurance Company which had assets of Dh890.6m ($242.4m), and Al Dhafra Insurance Company, with assets of Dh704.2m ($191.7m), Al Khazna forms a group of insurance firms that entered the market between 1979 and the mid-1990s, all of which have since grown steadily on the back of Abu Dhabi's expansion.

In addition to the conventional insurance market, Abu Dhabi is also home to four sharia-compliant insurers that together form a rapidly expanding takaful sector (see Islamic Financial Services chapter). Abu Dhabi National Takaful Company was the first to enter the market in 2003 and has since been joined by Methaq Takaful (2008), Al Hilal Takaful (2008), Insurance House (2011) and Wataniya (2011). "The relationship between the national and multinational companies in the local insurance sector is quite healthy," managing director of Methaq Takaful, Mohammad bin Hazzam Al Dhaheri, told OBG. "The growth in local companies is not stifled by the presence of internationals, and it creates an efficient, competitive atmosphere at the local level."

The number of players in the local takaful sector grew from just one in 2003 to five in 2011. Sharia-compliant insurance options are popular within the emirate

**Top five local insurers, 2010-11 (Dh m)**

| | GWPs | | Net underwriting income | |
|---|---|---|---|---|
| | 2010 | 2011 | 2010 | 2011 |
| ADNIC | 1770 | 2100 | 221.7 | 274.8 |
| Al Ain Ahlia | 593.7 | 503.7 | 84.3 | 70.7 |
| EIC | 529 | 543.3 | 60.1 | 61.6 |
| Al Khazna | 280.1 | 142.6 | -26.3 | 30.2 |
| Al Wathba | 279.8 | 325.3 | 34.1 | 37.3 |

SOURCE: Company reports, OBG

Apart from the global financial crisis in 2008 which slowed growth for the sector, there is a renewed hope for the insurance industry as the economic environment improves

Finally, standing somewhat apart from both the conventional and sharia-compliant insurers is the government-owned Daman. Formed in 2005 to ensure that the insurance industry had sufficient organisational capacity to accommodate a new mandatory health insurance scheme for expatriates, it is the first specialised national health insurance company in the UAE. Global insurance and reinsurance firm Munich Re, which maintains a 20% stake in the company, was appointed as its strategic partner and has since helped add around 2.1m clients to its books as of mid-2012. The firm continues to provide mandatory, government subsidised health coverage, as well as enhanced package prices at market rates. It also administrates the Thiqa programme, a government-funded health insurance scheme for nationals (see analysis).

**PERFORMANCE:** Abu Dhabi's insurance sector has benefitted from the rapid expansion of the local economy, as well as that of the wider UAE. Insurance Authority data show that the premiums written by insurers in the UAE grew by 170.8% between 2005 and 2010 and that local firms accounted for around 77% of the total during this period. The slowdown in the wake of the global economic crisis resulted in slower growth for the industry and individual losses, but the improving economic environment has since led to renewed optimism regarding future expansion.

According to the National Bureau of Statistics, real national GDP growth reached an estimated 4.9% in 2011, boosted by rising oil prices and production volumes in response to disruptions in Libya. This has been reflected in the balance sheets of the nation's insurance companies. Although the Insurance Authority has yet to publish its data for 2011, in 2012 Fatima Mohammed Ishaq Al Awadi, the Insurance Authority's deputy director-general, announced preliminary figures showing that national GWP grew by more than 11% in 2011 to reach Dh24bn ($6.5bn).

While some in the insurance community have pointed out that premium growth was achieved at the expense of net technical returns, Abu Dhabi's largest insurers demonstrated their commitment to bottom-line (or technical) growth and managed to achieve it with little or no erosion of the top line. An OBG analysis of the 2011 financial results for the largest five insurers based in Abu Dhabi showed that aggregate net underwriting income grew by 27.8% year-on-year (y-o-y), while GWP grew by an aggregate 4.62%. The largest top line gains were recorded by ADNIC, which expanded its GWP by 18.6% y-o-y, while still recording an impressive 23.9% growth in net underwriting income. The highest gainer on the bottom line was Al Khazna, which recorded a 114% expansion to turn around a net underwriting loss suffered in 2010. These strong performances were reflected in the aggregate net profit of Abu Dhabi's five largest players, which rose by 57.39% y-o-y to reach Dh346.1m ($94.2m) in 2011, although this figure is upwardly distorted by the turnaround staged by Al Khazna, which recovered from a loss of Dh106.1m ($28.9m) in 2010 to post a profit of Dh11.8m ($3.2m). Of the remaining firms, all showed positive growth over 2010 and 2011, with Al Ain Ahlia taking the lead with a gain of 13.8% y-o-y.

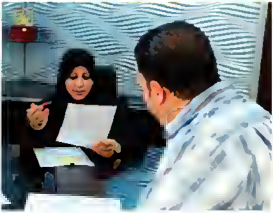
**INVESTMENT:** The uptick in both top-line and bottom-line growth recorded by Abu Dhabi's insurers is especially welcome since it comes at a time when deriving income from investments is quite challenging. Data from the Insurance Authority shows that shares and bonds account for the bulk of investment activity from UAE insurers, followed by deposits, land and real estate, and loans (see graph). Since the global economic crisis hit in 2008, the UAE's two major exchanges have followed a regional trend of muted performances. In 2011 the General Index of the Abu Dhabi Securities Exchange (ADX), in which many local players' investment capital is directed, posted a y-o-y decline of 11.7% and this is reflected in the investment results of the emirate's insurers. All five firms in the OBG analyses showed declining net investment income for 2011, with an average drop of 29.6%. Al Wathba posted the largest decline for the year, at 52.4%, while EIC recorded the smallest retrenchment at 5%. While some with-

in the industry point out that the more challenging investment environment has compelled insurers in the region to focus their attention on technical results, and that this has been beneficial. Abu Dhabi's insurers will welcome the return of an environment that enables them to revive investment-derived revenue streams.

**REGULATION:** As Abu Dhabi's insurance market grows in size and complexity, the need for effective regulation becomes greater. Before 2007, a regulatory body dedicated to the industry did not exist, but this changed with the promulgation of UAE Federal Law No. 6 of 2007 (better known as the Insurance Law), which replaced legislation dating back to the 1980s and established the Insurance Authority as the sector regulator in terms of licensing, conduct of business and prudential supervision. The new body quickly made its presence felt on the market, issuing executive regulations in 2009 and a code of practice in 2010 aimed at bringing greater clarity concerning how insurers, reinsurers, brokers, agents and advisers should remain in compliance with the law. It has also shown its willingness to act against entities it deems in breach of its regulations. In 2009 it rescinded the licences of 74 brokerage firms that had not met the capital adequacy requirements within the grace period allowed.

Among the key features introduced to the regulatory environment by the new law and the Insurance Authority are: a prohibition on simultaneously pursuing life/capital business and property/liability custom, to be observed by August 2015; and a restriction on insuring UAE risk, to the effect that "properties or possessions in existence inside the state or liabilities resultant thereof" must be insured within the UAE. In 2010, the Authority passed Resolution No 4 of that year, which brought greater oversight to takaful companies. The Insurance Law, executive regulations (including the takaful regulation) and code of ethics represent a broad-based regulatory platform that is a step-change to that which existed just half a decade ago. "The regulations that govern the sector are still under development, but improvements are already being made," said Fawaz Moukayed, the CEO of Guardian Insurance Brokers. "The Insurance Authority is running campaigns to educate the population about the importance of insurance, and have also developed a consultative dialogue with sector players to develop regulation."

**REFORM:** In 2011 the Federal National Council sanctioned a draft amendment to Article 9 of the Insurance Law aimed at protecting policyholders by addressing the issue of conflicts of interest among company board members. The Insurance Authority meanwhile, extended the deadline by which composite insurers have to separate their life/capital from property/liability businesses from August 2012 to August 2015. Following the decision, Sultan bin Saeed Al Mansouri, minister of economy and chairman of the Insurance Authority, told local press that the extension was granted to allow composite companies further opportunity to adjust their situation to foster a competitive environment in the UAE. The news has been welcomed by the 11 national and two foreign composite insurers in the market,


The uptick in top-line and bottom-line growth has helped compensate for reduced investment income

which had been faced with meeting the increased operational costs of running separate undertakings, as well as the heightened solvency requirements that two separately capitalised entities would entail.

The issue of solvency promises to dominate the regulatory sphere for some time. While the current regime establishes a fixed capital requirement of Dh100m ($27.2m), a security deposit, a solvency margin and a minimum guarantee fund, and defines a technical provisions scheme, the Insurance Authority provides little other guidance. This is set to change, however, if three provisions are ratified: instructions pertinent to the solvency margin and minimum guarantee fund; those pertinent to the basis of calculating the technical provisions, and directions pertinent to the basis of investing the rights of the policyholders. The instructions represent a move toward a more sophisticated and risk-based approach to determining capital and solvency requirements, and one more in line with an international trend led by Europe's Solvency II Directive. While their adoption promises to enhance the industry, they will pose a considerable challenge to smaller players, which may find that consolidation is necessary in order to meet the new requirements.

Regulatory changes are meant to protect policyholders and consolidate business practices. Reforms will also include more thorough guidance from the Insurance Authority on issues of solvency and policyholders rights

**OUTLOOK:** A growing population, a relatively low penetration rate and a healthy pipeline of infrastructure development by virtue of the Plan Abu Dhabi 2030 and the Abu Dhabi Economic Vision 2030 form the basis of the future growth of the emirate's insurers. Many have predicted a double-digit compound annual growth rate for the UAE insurance sector until 2015 – in this case at 19% to reach $18.3bn. Closer to home, and looking at the shorter term, Al Awadi stated in early 2012 that she expected GWP to reach Dh27bn ($7.3bn) that year, for an expected rise of 12.5%. While Abu Dhabi's insurers face a number of challenges, chief among them a difficult investment climate and a wave of regulation that promises to fundamentally alter the way in which they assess their business, the drivers for growth within the domestic market make for a sanguine outlook.

Total insured losses reached $108bn globally in 2011

# Taking the lead

## Building up the local reinsurance industry

Natural catastrophes such as hurricanes, earthquakes and tsunamis, are responsible for making 2011 the second-most expensive year to date for insurers, and they are expected to make a big impact in 2012 as well

A reliance on reinsurance providers is a characteristic of the GCC market, with regional players ceding an aggregate of 40% of their non life premium income in 2011, according to the Qatar Financial Centre's 2012 "GCC Reinsurance Barometer". While some of this is directed to local and regional firms, the majority is placed with the more developed reinsurance markets of Europe, such as the UK, Switzerland and Germany, and insurance hubs even further afield, such as Bermuda. The phenomenon has engendered a commonly held view that the insurance business in the GCC is primarily a reinsurance market, with local players seeking easy profit to be found in "risk-free" reinsurance commissions, acting more as commission agents than traditional insurance companies.

**REGULATIONS:** The regulatory framework governing reinsurance in the UAE certainly makes the business of ceding premium a straightforward one. There are no specific requirements in UAE law requiring reinsurance companies to monitor the claims, settlements and underwriting activity of the cedant company (although reinsurers can include a monitoring clause when they negotiate contracts). Similarly, UAE law makes no demands on companies on disclosures and notifications to reinsurers.

The only exception in this regard is within the Dubai International Financial Centre where, according to Article 61 of its Law of Obligations, there is a duty to "disclose to the insurer every fact within his knowledge which would influence the judgment of a prudent insurer in determining the terms and conditions of the contract or in determining whether to enter into the contract of insurance".

UAE reinsurance regulation allows for both treaty reinsurance, which entails a general agreement between insurer and reinsurer that automatically protects entire classes of insurance contracts, and faculty reinsurance, which covers only one underlying insured item and is written one account at a time. In general terms, faculty insurance in the UAE has, as with other markets, been traditionally deployed for larger or unusual risks, such as for the reinsurance of large and expensive oil tankers. The MENA insurance survey of 2012 revealed an increase in this form of reinsurance activity in the region, as companies sought to gain more control over their exposure after a series of losses due to their exposure to a rising number of natural catastrophe events.

According to data published by Swiss Re, a leading global reinsurer, 2011 witnessed the highest catastrophe-related economic losses in history, at around $350bn, and proved to be the second-most expensive year in history for insurers. Swiss Re estimated that, as a result of tragic incidents such as the earthquake and tsunami in Japan, which saw 30,000 people lose their lives in the first 11 months of the year, total insured losses for the global insurance industry reached $108bn in 2011 – more than double the $48bn of the previous year.

**MORE FACULTY REINSURANCE:** The trend towards increased facultative reinsurance has also been buoyed by relatively low rates. As long as pricing remains soft on faculty insurance, insurers that are writing for gross premium can convincingly argue that transferring as much of their risk as possible onto reinsurance companies is the most logical strategy.

Faculty insurance has generally been used for larger or unusual risks

A further regional characteristic which has fostered the growth of faculty reinsurance in recent years is a comparative lack of co-insurance arrangements, where the insured covers the losses up to a certain level (frequently seen in the health insurance segment, but also in other lines as well). Given that few regional insurance firms have the capacity to retain 100% of large risks, the low incidence of co-insurance deals in the Gulf has resulted in faculty insurance filling this business space.

There are a number of market forces that account for the large level of reinsurance activity in the region. However, while the general assumption that the GCC market traditionally cedes around half its gross written premium (GWP) to the regional and international insurance industry is correct, and that reinsurance commissions account for a large share of overall income displayed in the balance sheets of regional players each year, such a simple appraisal ignores an interesting trend toward increased retention in recent years – one in which Abu Dhabi's insurance companies are playing a leading role.

**RETAINING PREMIUMS:** At the national level, UAE insurers have exhibited a long-term trend of decreasing their cession rates. According to a 2010 report by regional investment bank Alpen Capital, the average ratio of ceded to retained premiums fell from about 61.3% in 2007 to around 56.4% by the second quarter of 2009, a move the investment bank attributes to greater sophistication and underwriting capacity on the part of the UAE's insurers. The report also posits the idea that insurers in the country altered their retention policy in 2009 to cede less business in response to slower growth in the wake of the global economic crisis.

An OBG analysis of the balance sheets of Abu Dhabi's largest insurance companies reveals that the emirate is very much in tune with this trend. Abu Dhabi National Insurance Company (ADNIC), Al Ain Ahlia Emirates Insurance Company (EIC) and Al Wathba National Insurance Company ceded an aggregate 52.85% of their GWP in 2011, compared to 56.9% in 2010, with Al Wathba showing the lowest cession rate at 41.8%. The trend was also evident in net commission derived from reinsurance as a percentage of net underwriting income.

All but one of Abu Dhabi's major insurers derived a smaller portion of its profit from ceding business to reinsurers in 2011, showing an aggregate net commission of 21.3% compared to the 24.3% in 2010. Of the big four, ADNIC derived the smallest amount of its income from commissions on reinsurance, at 6.8%, followed by EIC (22.7%), Al Wathba (25.7%) and Al Ain (30.1%). While retention rates decline further down the list of Abu Dhabi-based insurers by asset size, the market leaders have established a clear pattern of expanding retention.

**IMPROVING PROFITS:** The move toward greater retention bodes well for the domestic insurance sector as, assuming that retained risk is adequately assessed and managed, the most obvious bonus of

New solvency regulations are expected to lead to consolidation

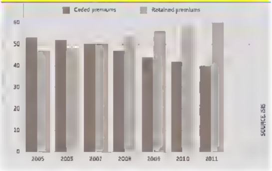
lowering the cession rate is improved profitability. The retention outlook is a bullish one, the strengthening of balance sheets that has been a market feature over 2011/12 will allow domestic insurers to ramp up their retention level.

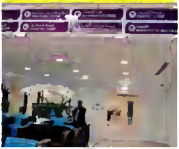
A combination of strengthening balance sheets and consolidation in the market will likely help insurers to retain more risk on their books.

The anticipated market consolidation resulting from new solvency regulations will also provide a platform by which local insurers can maintain more business on their own books, while an increasing level of technical expertise within the local industry is enabling the level of risk management needed to accommodate this growth safely.

Risk management will remain a priority for local insurance companies, and many believe there is still work to be done in the area. "Risk management is at an early stage; many companies do not have risk officers, which remains one of the main challenges of the market," said Fareed Lutfi, the secretary-general of the Emirates Insurance Association. However, while challenges undoubtedly remain, the reliance on reinsurance that has defined the regional and local markets for so long is now slowly being eroded.

GCC premiums ceded to reinsurers, 2005-11 (%)





Efforts are under way to control rising health care costs

# Healthy reforms

## Initial success in expanding health coverage

As the only one of the UAE's seven emirates to implement a mandatory health insurance system, Abu Dhabi's health insurance sector has been keenly observed by both the rest of the country as well as its GCC neighbours who are contemplating one of their own. A less successful attempt by Kuwait to introduce a national insurance system some years ago demonstrated the difficulties a country faces when moving from a model in which the government plays the role of both provider and payer to one in which numerous health care providers and insurance companies interact to provide coverage. Thus, Abu Dhabi's success to date has provided an example to the region of how such a transformation might be carried out. In 2012 the framework of the system is almost entirely in place, and attention has turned to the fine-tuning of some of the inevitable dissonances that arise during such structural shifts.

**PHASE ONE:** One of the principal factors underlying the successful implementation of Abu Dhabi's new health insurance system is the incremental manner in which it was transformed from theory to practice. The process began as early as 2005, with the promulgation of the Abu Dhabi Health Insurance Law No. 23 of that year. The new law provided the legal framework by which the market participants – insurers, insurance intermediaries, health care providers and third-party administrators – are governed. Next came two years of preparation work before the implementation of the strategy's first phase in 2007. This saw the application of the law to all expatriates and their dependents living or residing in the emirate, as well as the commencement of the Health Authority – Abu Dhabi's (HAAD) oversight role, which is still ongoing.

The basic package determined by HAAD offers coverage at a government-subsidised price of Dh600 ($163.32) per year and is administered by Daman, the government-owned specialised health insurance company that began operations in 2006. Daman quickly became the region's largest health insurer. At the same time, both Daman and private sector insurers are able to offer "Enhanced" packages to customers, which would provide them with additional coverage, but at premiums determined by the market.

**PHASE TWO:** A second phase of development came with the introduction of the Thiqa system in 2008, which was directed towards UAE nationals. All citizens are required to enrol in the programme, which provides comprehensive coverage at no cost. The Thiqa system is administered by Daman, which services the transactions between the payer (the Ministry of Finance) and providers (the health care facilities). Daman also provides UAE nationals with the Thiqa cards that have replaced the old health cards.

Daman enjoyed a number of privileges during this first phase of implementation, which have been gradually rescinded. Until 2008, for example, government-run entities were compelled to use Daman for their employees' insurance packages, and until January 2010 the company had an exclusive right to direct billing within the Abu Dhabi Health Services Company's facilities, so that patients insured by other companies were asked to pay for services in cash. Now that these privileges have been removed, the market has been fully opened to the private sector, and there are now more than 30 insurers offering health coverage instruments to the Abu Dhabi market. These include large multinationals such as AXA, as well as domestic giants including the Abu Dhabi National Insurance Company (ADNIC) and Al Dhafra, all of which are now able to offer their customers direct billing.

The introduction of mandatory health coverage for expatriates in Abu Dhabi has considerably altered the structure of the wider UAE insurance and health care provider market. Data from the UAE Insurance Authority show that medical insurance premiums accounted for just 12.2% of the sector total in 2006, at a value of just over Dh1bn ($272.2m). By 2010, the most recent year for which data is available, its share of the market had risen to 27.5%, bringing in a premium of Dh4.97bn ($1.4bn). Encouragingly for the domestic players, 82.9%

Until 2008, those covered by private insurers were required to pay for health care services in cash, but a two-phase reform programme changed the law so that all insurers had access to direct-billing capabilities.

Citizens and expats alike are required to get health insurance while residing in Abu Dhabi. As a result medical cover accounted for 27.5% of the overall market in 2010.

Medical insurance premiums rose from 12.2% of the sector total in 2006 to 27.5% in 2010

The cost of health care has been on the rise since 2007, with outpatient costs jumping as much as 25% each year, resulting in the introduction of a new DRG claims system in 2010.

of this figure was claimed by national companies. "Private sector interest in the emirate's health sector continues to grow," Michael Bitzer, the CEO of Daman, told OBG. "We have seen more and more private operators enter the market. This will increase competition, which is beneficial for the patients."

**FINE TUNING:** With the framework in place, Abu Dhabi's health insurance system has been undergoing a process of gradual adjustment over the past two years. In 2010 HAAD introduced a new Diagnosis Related Groups (DRG) claiming system to replace the fee-for-service model, by which the health care provider was simply paid the requested amount. Under the DRG protocol insurers pay providers an average amount per procedure, which allows for greater flexibility and encourages efficiency. The new system is in part a response to rising health care inflation, which the old fee-for-service model was failing to control. Rising health care costs have emerged as a significant challenge to the insurance industry: in late 2011, Sven Rohte, the chief commercial officer of Daman, told the local press that outpatient costs rose 25% each year from 2007, and are followed by surgery, in-patient and day care as the biggest cost drivers in the system.

The extent to which the implementation of DRGs can ameliorate this issue is as yet unclear. While both public and private hospitals have been required to use it when submitting claims for patients covered by the basic plan since August 2010, it has not yet been fully implemented across the health care insurance universe.

Insurance companies and health care providers were given a deadline of December 2011 to implement DRG-based reimbursement for all inpatient claims, and throughout 2011 HAAD staged a number of workshops in order to assist market participants.

Providers, which had already adopted DRGs for patients covered by the basic plan, found the transition process easier than insurance companies, many of which were unable to meet the deadline. The authority therefore granted extensions on a request basis.

**ISSUES TO SETTLE:** In the meantime, HAAD is turning its attention to some other issues that have arisen since the new health insurance framework was established. A new law, currently in draft form, aims to address timing discrepancies between patients, health care providers and insurers, leading to some complaints that payments for treatment have been delayed. Under its provisions insurers will be given a 45-day period to settle outstanding amounts, while patients and health care providers will be granted recourse to a complaints system if their policy entitlements are not met.

Such an alteration to the legal framework carries implications for the industry, and the detail of the proposal will be of great interest to local insurers. "The Ministry of Finance and representatives from insurance companies are currently in discussions to address the problems being faced due to this issue. Once talks are complete, the new law will balance the needs of the health insurance companies, patients and health care providers," said Fatima Mohammed Ishaq Al Awadi, the deputy director-general of the Insurance Authority.

Insurers, too, would like to see some issues addressed, particularly with regard to the increasing instances of fraudulent health insurance claims. In 2011 the HAAD recorded more than 900 complaints from the industry concerning unethical practices such as the scheduling of unnecessary surgeries, treatment procedures, prescription forgery and claims for unperformed medical services. A total of 34 of these cases were referred to the public prosecutors, and six went to the courts. Combined with administrative errors that have resulted in the filing of duplicate invoices, such instances have helped fuel the inflation of health care costs that has begun to trouble the industry, thereby becoming a matter of increasing concern.

**PROBLEM-SOLVING:** HAAD has taken a number of steps to combat the problem. As well as showing a readiness to prosecute cases of fraud, it has produced a set of more stringent guidelines regarding prohibited practices and bolstered its medical investigation and audit team with further resources. Insurers have also invested in medical investigation operations.

"The implementation of DRGs will help cut down on medical fraud within the system," said Daman's Bitzer. "Additionally, DRGs are easier to monitor than itemised bills, but still require their own monitoring system in order to ensure accuracy."

The issues being addressed by HAAD and the industry today are common to all health insurance markets and do not represent a long-term challenge. The medium term will likely see more adjustment of this nature, as the HAAD attempts to establish the best regulatory fit for all market participants. The question of longer-term reform brings more interesting implications. Dubai's intention to adopt a similar scheme by 2013 raises the possibility of a federal insurance system. In 2012 a draft law was introduced outlining such a federal model, proposing a national health insurance authority that would work with local authorities within each emirate. How the new legislation would interact with the current law in Abu Dhabi, however, is as yet unclear.

# Energy

A goal to boost oil output capacity to 3.5m bpd by 2018
New refining capacity will curb the need for imports
Renewables can diversify the power grid's resource mix
Nuclear project offers a solution to electricity demand
Advanced extraction techniques maximise recovery

Production can last roughly 80 years at current output levels

# Room for more

## Numerous projects on multiple fronts are energising the sector

A string of investments in both conventional and alternative resources is ensuring that Abu Dhabi sits at the very centre of the global energy map. With vast reserves still promising more than 80 years of production at current rates and conditions, the government is nevertheless keen to develop the latest in enhanced oil recovery (EOR) to maximise its onshore and offshore assets. At the same time, it is prioritising a rapid increase in the production of sizeable gas fields to meet a looming supply crunch, while pushing ahead with fledgling solar power and nuclear industries. All this combines to make the emirate a hive of investment opportunities, albeit one in which the competition is increasing.

**EXPORT OUTLOOK:** Even with the growing buzz around unconventional hydrocarbons and their ability to meet global energy needs, Abu Dhabi can be sure that crude reserves will remain vital to the global economy in the years ahead. In late 2011 the International Energy Agency (IEA) stated that more than 90% of growth in global oil production must come from countries in the Middle East and North Africa. As such, Abu Dhabi's decision to increase production capacity by around 25% by 2018 is well placed. Although the emirate is looking to diversify its economy away from hydrocarbons, crude exports will provide a steady source of revenue and investment in the coming decades. However, the market has experienced bouts of uncertainty that may extend into the short-term future. Political instability in the region, along with concerns over the possibility of a renewed global economic slowdown, led to volatility in global oil markets in 2011 and early 2012.

In the first half of 2011 Brent crude surged from around $95 per barrel to more than $125, as disruptions in Libyan production and unrest in several Middle Eastern countries raised fears over the security of supplies. But by the end of the year, economic woes – primarily in relation to the eurozone sovereign debt crisis – brought prices back below $110.

Moving into 2012, an increase in the perceived risk of interrupted oil shipments passing via the Strait of Hormuz caused a steep rise in prices to nearly $130. In a coordinated move with Saudi Arabia, the UAE agreed early in the year to ramp up production to make up for lost supplies from other members of the OPEC. This saw oil output from the UAE – of which 95% comes from Abu Dhabi – reach its full capacity of 2.8m barrels per day (bpd) in August 2012, and demand was reported to be strong.

Future trends in global oil demand are unclear, given the rapid growth in Eastern countries as many Western nations grapple with financial woes. Asian buyers have recently begun to purchase the majority of Abu Dhabi's crude exports, and sustained economic growth on that continent will make it an important destination for the emirate's oil, especially as Abu Dhabi makes large investments to boost its production capacity. Some economists point to signs of economic fragility in countries like India and China, but others remain broadly convinced that their growth will remain strong.

**LONG-TERM:** Abu Dhabi's efforts to remain one of the world's leading crude oil exporters make sense. According to BP's "Statistical Review of World Energy 2012", the UAE's 97.8bn barrels of proven reserves will keep up supply for another 80 years at current production rates and at an assumed 70% estimated ultimate recovery. This makes the country's oil sector an attractive proposition to Asian giants looking to shore up their long-term energy security.

Furthermore, a large spike in Abu Dhabi's production in 2011 and 2012 has kept the UAE at the forefront of an increasingly competitive pack of Middle Eastern oil exporters. BP figures suggest the UAE expanded its production by 14.2% in 2011 – faster than any other country in the region – averaging 3m bpd of crude and liquid condensate. As such, the UAE ranked as the world's fifth-largest producer, with 3.8% of global production, up from 3.2% in 2010.

The UAE increased production by approximately 14.2% during 2011 to 3m bpd of crude and condensate, faster than any other country in the GCC region.

Offshore oil projects are expected to add 500,000 bpd by 2017

Over the next five years, increases in capacity are expected both onshore and offshore. The ultimate goal is to reach 3.5m bpd of production capacity by 2018.

**UPSTREAM:** Despite its secure footing Abu Dhabi aims to further boost production capacity, from current levels of 2.8m bpd to 3.5m bpd by 2018. Although the UAE's official production quota from OPEC is today 2.2m bpd, the UAE's move to ramp up production to full capacity in 2012 to make up for shortfalls from other OPEC members demonstrates the usefulness of having excess capacity, given the unpredictability of contemporary oil markets. Even if the emirate does not immediately begin to pump 3.5m bpd once the capacity is reached, the ability to do so will be a welcome development both for buyers and those investing in Abu Dhabi's energy industry.

Over the past decade, plans to increase capacity have suffered some delays, but the pace appears to be picking up. While the government's official target has been to boost capacity to 3.5m bpd by 2018, a December 2011 report by the IEA reported that expansion projects have been "fast-tracked"; it now expects capacity to hit 3.4m bpd by as early as 2017.

**ONSHORE:** New capacity will gradually become available over the next five years, with gains expected in both offshore and onshore operations. The Abu Dhabi Company for Onshore Oil Operations (ADCO) announced that capacity in its fields would increase by 213,000 bpd in 2012 and, following the allocation of service contracts in that same year, by another 200,000 bpd by 2016. In this way the operator's total output will grow from 1.4m bpd to 1.8m bpd over the next four years, with upgrades and new fields pushing up capacity. Ongoing expansion will bring an additional 111,000 bpd by 2014 to ADCO's Bab, and two new fields, Qusahwira and North East Bab, are also expected to come on-line by 2014, adding 250,000 bpd. A smaller addition of 20,000 bpd is due to be made at the Bida Al Qemzan field by the end of 2013. Additionally, four-year expansion projects at Asab should see increased production at the field by 2013, according to Petrofac, which was awarded the engineering, procurement and construction (EPC) contract for the project.

**OFFSHORE:** The Abu Dhabi Marine Operating Company (ADMA-OPCO) operates the emirate's main offshore fields. ADMA-OPCO envisages that its total capacity will rise by 14.2% to 700,000 bpd before the end of 2014, and by 60% by 2017, bringing the company's production to 970,000 bpd.

The first of these boosts is largely thanks to a water injection upgrade project on the Lower Zakum field, ramping up its capacity by almost a third. An extra 20,000 to 25,000 bpd should also be squeezed out of the further development of a reservoir in the Umm Shaif field. The new developments at the Nasr and Umm Al Lulu fields, on which at least $10bn will be spent, will help realise ADMA-OPCO's 2017 production goal. The initial phase of Umm Al Lulu is to come on-line by 2013, and $4.5bn of the project had been tendered as of 2012 (see analysis).

The emirate's other major offshore developer, the Zakum Development Company (ZADCO), whose mandate is to develop and operate the Upper Zakum,

Satah and Umm Al Dalkh fields, also has ambitious expansion plans. In September 2011 ZADCO awarded a $500m contract to France's Technip and Abu Dhabi's National Petroleum Construction Company (NPCC) for work on the Satah Full Field Development, a brownfield project to maximise production and recovery rates. ZADCO is also overseeing the Upper Zakum 750 (UZ 750) project, which seeks to boost production at the Upper Zakum field from 520,000 bpd to 750,000 bpd by 2015.

The project is being awarded in two separate EPC contracts, the first of which, EPC-1, was awarded to a second joint venture by Technip and NPCC for $800m in July 2012. The second contract, EPC-2, valued at approximately $4.2bn and focusing on the onshore efforts of the project, is to be awarded by the year's end. Central to the Abu Dhabi National Oil Company's (ADNOC) overall industry expansion, UZ 750 involves the construction of artificial islands that house new drilling platforms and other production infrastructure. The islands are expected to reduce costs of development and increase recovery factors. "In the long term, they will allow for significant increases in production," Morten Mauritzen, the president of ExxonMobil Abu Dhabi, told OBG. The islands also have environmental benefits for Abu Dhabi's waters. "Compared to the numerous towers, platforms and pipelines we currently see spread out over the ocean, they will be a much more efficient use of space, and their environmental footprint will therefore be that much smaller," said Mauritzen, adding that it will be easier to manage and maintain the fields, and that the risk of oil spills will be reduced.

**ASIAN ARRIVALS:** Western firms have long dominated Abu Dhabi's oil and gas sector, but recent years have seen growing interest from the oil-hungry economies of the East. The emirate has signed multiple production agreements with Japan in recent years, and in 2012 the government committed to a joint venture that gives South Korea a stake in its crude oil, securing supply of Middle Eastern oil for the Asian nation. As is typical of ADNOC joint venture arrangements, the national company retains a 60% stake, and the remainder is divided between the Korea National Oil Corporation (34%) and its Korea-based partner, GS Energy (6%). Valued at $5bn, the development, which began in 2012, involves the exploration of several blocks that are expected to provide around 43,000 bpd of crude. Chinese oil companies also look set to make Abu Dhabi a part of their rapid expansion drive into the world's major energy producers. After signing a strategic cooperation agreement with Abu Dhabi in 2012, the China National Petroleum Corporation (CNPC) is studying five possible onshore and two offshore blocks.

The gains of these Asian countries come at a pivotal moment as Abu Dhabi's petroleum industry is set to see major changes when the decades-old ADCO concessions expire in 2014 (onshore). These developments suggest that in the upcoming retendering phase, when the tenders currently held by major Western companies expire, bids made by Asian players are expected to be favourably received. However, despite the potential reshuffling, there are good reasons why the emirate would want to retain and foster relations with well-established international oil firms currently in its fold.

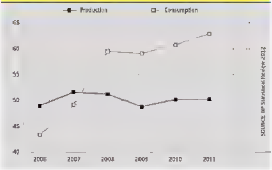
"The mature oilfields of Abu Dhabi require high levels of technology and thorough knowledge of the reservoirs," Sultan Al Hajji, the vice-president of institutional development at Total ABK, told OBG. As the emirate looks for new or alternative ways to boost production capacity, the experience and advanced technological capacity of the major players in Abu Dhabi may be crucial (see analysis).

**PIPELINE:** In 2008 China Petroleum Engineering & Construction (CPEC), a subsidiary of CNPC, won a $3.3bn contract from the International Petroleum Investment Company to construct a 380-km oil pipeline stretching from Habshan in Abu Dhabi to a coastal terminal in Fujairah. The pipeline is designed to carry two-thirds of the emirate's current peak oil production, roughly 1.5m bpd, with the ability to

Some 98% of the emirates electricity is sourced from natural gas

It is customary for ADNOC to retain a 60% stake in each of the oil production projects in which it participates via a joint venture.

UAE natural gas production & consumption, 2006-11 (bn cu metres)



High oil prices have driven greater demand for ancillary services

The value of oil contracts declined in 2011, falling to only $2.69bn from $13bn in 2010. Project values recovered in 2012, however, and are expected to exceed $8bn.

increase this to 1.8m bpd. Although delayed more than two years, the pipeline partially opened in June 2012 and is now fully operational.

As well as allowing Emirati oil to be transported more quickly and easily, the pipeline is a strategic move, reducing the country's reliance on the shipping routes passing through the Strait of Hormuz, a volatile geopolitical hotspot. The Habshan-Fujairah pipeline allows the UAE to ship oil directly from the Fujairah export terminal in the Gulf of Oman.

**ENGINEERING, PROCUREMENT & CONSTRUCTION:** With billions of dollars pouring into oil and gas developments, the engineering, procurement and construction (EPC) industry has surged. The generally high oil prices of 2012 have fuelled demand for EPC work. A peak year was 2009, when more than $30.21bn worth of projects were awarded, followed in 2010 by a still considerable $13bn, according to Middle East Economic Digest (MEED) Projects, a Middle East business intelligence firm. "The oil and gas expansion projects in Abu Dhabi did not slow down as a result of the global financial crisis," Abdulla Saeed Al Suwaidi, the CEO of National Drilling Company (NDC), part of the ADNOC Group of Companies, told OBG. "This was a good opportunity to invest in tendering for new rigs and enhancing our portfolio; NDC is working closely with operating companies to meet their requirements." While contract values fell to $2.69bn in 2011, investment is expected to rebound in 2012 to $8bn or more (see analysis). "There are massive projects under way in the hydrocarbons sector, and more and more nationals are looking to enter the workforce for this industry," Abdulkarim Al Mazmi, the general manager and chief representative of BP UAE, told OBG.

**KOREAN COMPETITION:** Given the expansion, competition has been stiffening. Asian players are making big entrances in the EPC segment, especially South Korea. According to Contax Partners, an oil and gas consultancy, the aggressive pricing strategy used by Korean firms is paying off. They were awarded $21bn worth of energy projects in the GCC area during 2011, accounting for 23% of all awards made that year. For now, says Contax, they are the most prevalent in the power sector. According to figures from the Korea Institute for International Economic Policy, the UAE provides Korea with 36% of its EPC work – more than any other country.

Given recent production agreements Abu Dhabi has signed with South Korea, Korean EPC firms will be well positioned to win more work. As such, Korean players are reportedly causing medium-sized and even large EPC providers that have traditionally operated in the local sector to rethink their strategies.

The state-owned NPCC has fared well in recent years, with its highest net profits to date ($249m) realised in 2010, up 40% on 2009. But the company is now feeling the pinch of Korean and other Asian competition, its chief executive, Aqeel Abdullah Madhi, stated in a company press release in December 2011. NPCC won significantly fewer projects in 2011

compared to 2010, he told reporters. However, with the $500m it intends to invest in upgrading and expanding its equipment, NPCC should have a better footing in the competitive market.

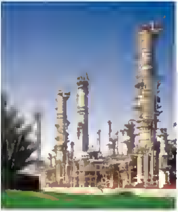
It is also playing a major role in the development of the offshore Upper Zakum field, having won two significant contracts for the project, both in joint venture with Technip, the first for $500m EPC in September 2011, and the second for $800m in July the following year. Korean firms have yet to develop a particularly competitive offering for offshore upstream work, according to Contax, meaning other companies can still gain an advantage.

Nevertheless, European firms continue to be important players. Italy-based Saipem has found Abu Dhabi to be one of its most important markets in recent years. In mid-2010 it scored approximately $3.5bn of EPC contracts from the Abu Dhabi Gas Development Company for the gas-processing facilities, sulphur-recovery unit and pipelines associated with the Shah Gas development project. More recently, as the leader in a consortium with Italy's Maire Tecnimont and the UAE's Dodsal Engineering, Saipem won an $898m contract for the first construction stage of a rail network that will link Ruwais, Shah and Habshan by 2014. Prior to winning two joint venture projects with NPCC, Technip won a $415m contract in 2009 to work on the Asab 3 Project, aimed at boosting the amount of associated gas produced at the Asab, Shah and Sahil.

**REFINING:** While upstream activities expand, Abu Dhabi is also taking strides to boost its refining capacity. The emirate's two refineries are managed by the state-owned Abu Dhabi Oil Refining Company (Takreer), and they have a combined current refining capacity of 485,000 bpd.

Ruwais refinery, the larger of Takreer's two plants, is undergoing $9.6bn worth of expansion projects, which should boost Abu Dhabi's total current refining capacity to 907,000 bpd by the end of 2013. Four Korean companies are carrying out the work, having been awarded contracts in 2010. The boost will be helpful on a number of fronts. Added capacity will help the emirate address the needs of the local market, where demand for transportation fuels and new industrial developments is growing. This will enable Abu Dhabi to streamline its own petroleum production industry, as well continue integrating it with other sectors of the economy. For example, the petrochemicals complex of Borouge in Ruwais that produces olefins is seeing significant expansion, and is due to receive 1.1m tonnes of propylene feedstock from the Ruwais refinery.

The expansion projects are also instrumental in allowing Abu Dhabi to secure a greater share of an export market that is expected to grow in the coming years. A 2012 report by Global Data on the world's refining industry found that by 2016 the majority of new demand for petroleum products is expected to come from the Middle East, Africa and the Asia Pacific region. Furthermore, the study shows buyers of



Efforts are afoot to boost refining capacity to 907,000 bpd in 2013

refined products will increasingly look to MENA-based suppliers: while today producers in that region contribute 13% of global petroleum supply, they are projected to provide 17% by 2016.

Currently, the emirate is catering to both the European and Asian markets, with the biggest importers being France, Japan, Korea, the Netherlands and Taiwan, according to the Statistics Centre – Abu Dhabi. Both France and the Netherlands increased their imports of refined products from Abu Dhabi between 2006 and 2010, but given current projections and population growth trends, the bulk could become Asia's. Korea accounted for 12.3% of the emirate's refined exports in 2011, up from 11.8% in 2006, while Taiwan's share jumped from 6.3% to 12.1%. Over the same period, the UK's total share of Abu Dhabi's petroleum exports fell from 13.4% to 3.9%.

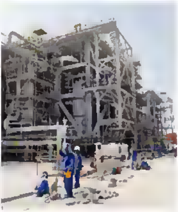
**ELECTRICITY DEMAND GROWTH:** As Abu Dhabi is able to optimise the value derived from its oil on international markets, it is also looking to secure sufficient natural gas supplies to meet local demand. Despite holding the world's seventh-largest proven reserves of natural gas – 6tn cu metres, according to BP's "Statistical Review of World Energy 2012" – the UAE currently produces only minimal quantities from its reserves. Annual production rates have been edging up over the past five years, from 49bn cu metres in 2006 to 51.7bn cu metres in 2011, but not fast enough to keep pace with domestic demand. In

Asia is regarded as the next key market for Abu Dhabi's refined products. Korea accounted for 12.3% refined exports in 2011 while the UK's share fell from 13.4% to 3.9% in the same period.

Major oil & gas projects

| Operator | Project | Value | Completion date |
|---|---|---|---|
| GASCO | Integrated Gas Development | $10bn | 2013 |
| Al Hosn | Shah gas field development | $10bn | 2014 |
| ADCO | Phase 1 development | $3bn | 2017 |
| ADMA-OPCO | Satah Al Rasboot oilfield development | $1.5bn | 2014 |
| ZADCO | Satah full field development | $530m | 2014 |
| ZADCO | Umm Al Dalkh full field development | $650m | 2015 |

SOURCE: Zawya Projects



Electricity demand growth has all players reconsidering gas uses

Some 93% of the UAE's natural gas reserves are located in Abu Dhabi, where efforts are under way to maximise output and see it utilised at home

2007 consumption began to outpace production and the gap continues to grow. At the end of 2011 consumption had reached 62.9bn cu metres, growing 3.5% in just one year according to the BP report.

With electricity demand in the emirate set to grow by 7-10% annually through 2020, according to the Abu Dhabi Water and Electricity Company, power plants will have to burn more and more gas, which is the fuel source for 98% of the UAE's total electricity generation, according to the International Energy Association. Making matters more pressing is that a large proportion of the gas produced in Abu Dhabi is "re-injected", or pumped back into the ground to boost oil production. According to research published in 2010 by the Dubai Initiative in cooperation with the Harvard Kennedy School of Government, the UAE re-injects around 18bn cu metres of gas every year – 38% of total production.

**BOOSTING PRODUCTION:** Policymakers have been working to attract new investments in an effort to keep the emirate supplied. Since 93% of the UAE's natural gas reserves are found in Abu Dhabi, the emirate will likely be the scene for most of the action in the years ahead. To increase local production the Abu Dhabi Gas Industries (GASCO) spearheaded the $9bn Integrated Gas Development in 2009 to boost the procurement of gas from the Umm Shaif field and its processing at Habshan and Ruwais. The project is scheduled for completion by 2013, and will have a capacity of 900m standard cu feet per day (scfd) and 12,000 tonnes per day (tpd) of natural gas liquids and 5000 tpd of liquid sulphur.

**SULPHUR SOLUTIONS:** Various plans are currently being developed to utilise this sulphur production, both within the emirate and as an export product. The Abu Dhabi National Tanker Company (ADNATCO) is a wholly owned subsidiary of ADNOC and operates nine bulk carriers that transport sulphur and other products. "Shipping sulphur is already an important segment of our business," Ali Obaid Al Yabhouni, the CEO of ADNATCO & the National Gas Shipping Company, told OBG. ADNATCO & NGSCO operates a fleet of 30 ships, of which nine are bulk carriers that are dedicated for the transport of sulphur and other products. "As sulphur production from a number of projects increase, we expect this segment to grow." In 2011 an equally massive joint venture agreement was concluded between ADNOC and Occidental Petroleum to develop the Shah Sour Gas Project. This endeavour will build up sour gas production capacity from the Shah field, aiming to source 500m cu feet of natural gas per day, as well as 50,000 bpd of natural gas liquids and condensate (see analysis).

To address the present and expected shortages in the future, the emirate is looking for a commercially viable substitute for the large amount of natural gas that is re-injected for oil production. One promising option is to use carbon dioxide captured from industrial activities, but carbon capture and storage (CCS) projects, both globally and in Abu Dhabi, have experienced delays in recent years.

Nevertheless, the emirate looks set to see its first large-scale CCS project go to tender. In early 2012 it was announced that negotiations on commercial issues had made sufficient progress to go ahead with plans. Alongside a nitrogen injection project, CCS will put the emirate in the direction of securing future gas needs, while helping the industry maximise the capacity and utility of maturing oilfields.

To this end, the emirate is strongly promoting the development and use of EOR technologies. Projections suggest that this technology will be increasingly valuable for the industry given that, according to the US Geological Survey, only around 13% of the world's 3trn barrels of heavy oil reserves can be produced with current technology.

**RENEWABLES:** While Abu Dhabi strives to make the most of its hydrocarbons, it has equally ambitious plans to develop renewable energy. The government aims to draw 7% of the emirate's total generation capacity from renewable sources by 2020, a target that surpasses those of all neighbouring Gulf countries. At the forefront of this drive is Masdar, a state-owned conglomerate that advances the renewables industry through a multipronged investment, development, commercialisation and research approach. The 7% target will keep up the pressure for large investments in utility-scale projects over the coming years. "The emirate requires all the renewable energy that it can get, but the problem is that it can't get enough, fast enough," John Barry, the country chair of Shell Abu Dhabi, told OBG. "Furthermore, renewables bring with them very high capital costs. Until mid-century, we see fossil fuels continuing to play a key role alongside renewables."

Solar power is at the top of the agenda, and Masdar, a developer and operator of renewable power projects, has announced that the $700m, 100-MW Shams 1 project – a concentrated solar power plant being built with France's Total and Spain's Abengoa – will be complete by the end of 2012.

Plans were announced in early 2011 to build a second 100-MW plant, Nour 1, which will use photovoltaic technology to produce energy. According to company officials, Masdar is currently reviewing the proposals received. "Hydrocarbons, renewable and nuclear energy will play a very important part of the emirate's future energy mix. Current investment in these fields will benefit Abu Dhabi greatly in the medium and long term. The Shams solar power plant is a good example in this direction," Sultan Al Hajji, the vice-president of institutional development at Total UAE, told OBG.

Wind energy is also on Masdar's agenda although, given Abu Dhabi's climate, wind will not make as large of a contribution as solar. The island of Sir Bani Yas is already home to the region's largest wind turbine, producing 850 KW of power. Masdar is also building its expertise by investing in several wind projects abroad, including one in the UK that is scheduled to be the largest offshore wind farm in the world – the 1-GW London Array offshore wind farm.

Solar projects are key to the emirate's aim of raising the renewable share of the energy mix to 7%

The first phase of the project will produce 630 MW and will reach completion in early 2013.

**RESEARCH:** Abu Dhabi has already been making headlines for its research and development (R&D) in energy technology. In 2009 the International Renewable Energy Agency decided to house its headquarters in Abu Dhabi, and this, along with the ongoing work of Masdar both at home and abroad, have put the emirate at centre stage. However, with funding for R&D in clean energy presently falling victim to fiscal austerity in many parts of Europe, renewable energy research efforts are beginning to play an even more important role in Abu Dhabi.

Masdar, which also oversees initiatives for carbon emissions reduction, focuses on the development of CCS technologies, especially in the oil, gas and power sectors. This is complemented by ongoing work at the Masdar Institute for Science and Technology (MI), a research-oriented, graduate-level university focused on alternative energy and sustainability. In May 2012 MI announced a research collaboration with Siemens, a global electronics and electrical engineering firm with expertise in the energy sector. Siemens evaluated the capture of carbon dioxide from gas-fired power plants and its use in EOR. Such research is vital not only for establishing a more sustainable energy mix, but also for reducing the emirate's greenhouse gas emissions.

MI's research into clean energy technology is aided by its location in Masdar City, a low-carbon technology cluster and special economic zone in Abu Dhabi. The urban space is not only a focal point for research, but also aims to be one of the most sustainable cities in the world, housing nearly 40,000 residents in an ultra energy-efficient environment.

**EFFICIENCY:** Alongside efforts to boost energy supply, Abu Dhabi has been working to reduce demand in a country with very high per-capita energy consumption. According to the latest statistics from the World Bank, the UAE's energy use has been falling,

The region's largest wind turbine produces 850 KW at Sir Bani Yas, but solar will make a much more significant contribution to the emirate's power grid, with 200 MW coming on-line in 2012 alone.

The government is studying conservation measures as a means of reducing consumption

but it still stands much higher than regional and global averages. According to the World Bank, in 2009 energy use per capita in the UAE stood at 8558 kg of oil equivalent, compared to 1678 kg for the Arab world and 1790 kg globally. In addition to the environmental benefits, efficiency improvement initiatives would save the government a significant sum. According to a February 2012 report published by Oliver Wyman, a management consultancy, some $3bn a year could be saved, with the majority of savings (51%) to be found in the residential sector.

To increase the energy efficiency of buildings, in 2010 the municipality of Abu Dhabi City contracted Masdar to launch a pilot programme to study wide-ranging conservation measures on a sample of 70 buildings. "The area selected is a representative sample of a dense urban environment, including residential and commercial properties including offices, schools, mosques and hospitals," Nicholas Brown, an associate at the corporate sustainability department at Masdar, told OBG. "Initial findings suggest that we could achieve technical savings of 30% through measures such as introducing low-energy lighting and optimising the performance of air conditioning systems." The first phase of this project will be completed in 2012, after which the municipality of Abu Dhabi City will assess the potential of expanding this conservation initiative to cover a larger area of Abu Dhabi City.

The municipality has also announced that it intends to introduce energy-efficient codes which, among other areas, will cover the maintenance requirements of existing buildings. The proposed codes will satisfy all of the UN's green building standards for very hot climates, and fall just short of the ideal energy consumption that can be theoretically achieved in the Gulf region. It is believed that the new codes will complement other initiatives such as the Estidama pearl rating system, which was ratified by the Executive Council in 2010 to enhance demand side energy management of the emirate of Abu Dhabi. Under this system all new communities, buildings and villas must achieve at least one "pearl" of energy compliance. "The pearls are similar to the US's Leadership in Energy and Environmental Design (LEED) ratings system however they are tailored to account for Abu Dhabi's climate," said Brown.

Despite these steps, many remain doubtful that energy efficiency can be properly tackled without an overhaul of government subsidies, which supply consumers with electricity, water and certain refined products at a fraction of their market price.

Nuclear power will help the emirate increase the electricity supply while reducing its carbon footprint, saving an estimated 12m tonnes of $CO_2$ emissions per year.

**NUCLEAR:** The largest contribution to Abu Dhabi's energy mix in the medium term will come from four scheduled nuclear energy plants, the first of which is to come on-line in 2017, followed by one more every year until 2020. Nuclear energy will provide base-load electricity to power the growth of the UAE while saving 12m tonnes of $CO_2$ emissions every year. State-backed Korean Electric Power Company (KEPCO) won the $20bn contract in late 2009 to construct the four 1400-MW reactors. All of the reactors will be located in the Al Gharbia region.

The meltdown at Japan's Fukushima nuclear plant in March 2011 following an earthquake and its attendant tsunami gave the world's nuclear industry a pause for thought, and led the UAE's Federal Authority for Nuclear Regulation (FANR) to prolong its licensing review. In July 2012 the regulator finally gave the green light, making the UAE the first country to embark on a peaceful nuclear programme since 1985. Following the approval of FANR and the Environment Agency – Abu Dhabi, ENEC began construction of Unit 1 and is on track to steadily advance its programme to deliver electricity by mid-2017. In August 2012 ENEC succeeded in arranging the appropriate legal and financial contracts to source Dh11bn ($2.99bn) worth of nuclear fuel from the US, Canada, the UK, France, Australia and Russia.

**OUTLOOK:** Abu Dhabi's energy policy is widely regarded as smart and heading in the right direction. Irrespective of future volatility in global oil markets, the government's push to increase its production capacity is the sensible long-term strategy, sending reassuring signals to industry investors and buyers. Asian entrants will likely increase their market presence, especially as those governments look to secure crude supplies for their fast-growing economies. At the same time, Abu Dhabi's leadership is unlikely to relinquish the experience built up by international oil firms with decades of activity in the emirate. As for gas resources, the emirate is keen to minimise imports and shortages, through investment in and expansion of its reserves and production. Renewable energy and efficiency measures are making headway, although the sector is held back by subsidies for consumers, and these are unlikely to change in the near future. At the same time, the drive to make Abu Dhabi a research centre for EOR, renewables and clean technology should pay off in the long run, as the world pursues the latest technologies in these fields.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# Boosting efficiency

## OBG talks to Abdulla Nasser Al Suwaidi, Director-General, Abu Dhabi National Oil Company (ADNOC)

**What can be done to lower the capital input costs involved in oil and gas extraction?**

**AL SUWAIDI:** We have a rigorous value assurance process to control the cost of developments. Over the years, we acquired a unique expertise in project execution to enable ADNOC to deliver such projects in a timely and cost effective manner. Of course, we put a lot of effort into the planning stage, particularly in the feasibility studies, and start with the end results in mind. This is very important in order to avoid costly revisions, and rework at later stages of the projects. Front-end engineering and design include value engineering studies, maximising the value generated from development. The lessons that are learnt and shared among ADNOC and the international oil company partners do increase value and bring about cost efficiencies. One important factor is that we maintain transparency throughout the tendering process. Our commercial processes maximise the number of qualified bidders and set solid competition strategies, which helps to reduce the cost of capital projects.

**In what ways is the government incentivising clean and sustainable energy investments in the emirate? How is ADNOC supporting these initiatives?**

**AL SUWAIDI:** The Abu Dhabi Economic Vision 2030 includes an environmental protection plan and is being steered by the Environmental Agency Abu Dhabi. The project will establish five priority areas with sector-specific imperatives and threshold requirements. One imperative is to develop and transit to renewable and low-carbon energy and utilities. The 2030 target calls for 30% of the emirate's annual electricity to be generated using low carbon and renewable energy sources. ADNOC supports these policies by promoting renewable energy use and introducing these techniques into our operations, like solar energy panels.

ADNOC works closely with Masdar, and our major initiatives aim to reduce carbon emissions from Abu Dhabi's oil and gas facilities. This partnership utilises a clean development mechanism (CDM) set out by the Kyoto Protocol, and several CDM projects are under way. We are keen to realise better mechanisms for $CO_2$ injection in our fields. This has significant potential and added value for Abu Dhabi and could be a replacement for gas injections, allowing gas to be used instead for power generation.

Finally, Masdar Institute of Science and Technology and the Petroleum Institute, an affiliate of ADNOC, have a collaborative agreement to strengthen Abu Dhabi's research and development efforts in the energy field. Faculty members will work together on research projects and exchange lectures and insights from across the spectrum of energy.

**How can capacity in the oil and gas sector be increased to keep pace with rising domestic and global energy demand?**

**AL SUWAIDI:** ADNOC is committed to meeting the government's target of increasing crude oil and gas production. The local economy relies on gas for fuel, so we aim to raise production through an ambitious development programme that caters for the short, medium and long terms. A fine example of this is the large Shah sour gas field project. Additionally, numerous undeveloped reservoirs are currently being appraised in preparation for future extraction.

Gas plays a critical role in supporting ADNOC's activities and revenues. It is used to support our enhanced oil recovery mechanism in oilfields; as fuel for power generation and industrial applications, and as feedstock to some of ADNOC's downstream companies engaged in the petrochemicals and fertiliser industries. In terms of oil production, ADNOC continues to carry out projects to expand our production capacity. This is done by increasing output from existing reservoirs together with additional oil from other undeveloped fields. The extra oil will help satisfy the growing global demand and can also be used to make feedstock for our planned refinery expansion scheme

EPC contracts in oil and gas services could reach $8.4bn in 2012

# Adding projects

## Rising investment levels carry the industry forward

A surge in planned spending on energy projects in Gulf nations has characterised 2012, and Abu Dhabi has been no exception to the trend. While precise estimates vary, there is a consensus among industry observers that the value of the engineering, procurement and construction (EPC) contracts in the emirate's oil and gas sector is set to see a huge increase in 2012 over 2011 levels.

According to data from *Middle East Economic Digest* (MEED), in 2011 $2.7bn worth of EPC contracts were signed in Abu Dhabi. This figure is projected to swell to $8.4bn over the course of 2012. Even among the major developments in the emirate's neighbouring energy-giant countries, Abu Dhabi ranks high. According to Contax Partners, an oil and gas consultancy, the UAE is expected to see the Middle East's second-highest levels of spending on energy projects in 2012, after Saudi Arabia. Abu Dhabi Gas Industries estimates that total actual and planned spending in the UAE in 2010-14 stands at $40bn, putting the nation first among all Gulf Arab nations in terms of spend. Abu Dhabi is the recipient of nearly two-thirds of the total sum.

Caveats do exist for this bullish outlook. It is possible that announced projects will not be awarded on schedule. In 2011 only around $7.5bn of projects in the GCC originally amounting to $173.5bn were awarded, Contax said. It is also worth noting that even if the full $8.4bn in projects planned for Abu Dhabi are handed out according to schedule, this value remains significantly lower than of the staggering $30.2bn reached in 2009 and $13bn seen in 2010. Some contractors also hold a more restrained outlook for the sector in 2012.

**OFFSHORE UPSTREAM:** The bulk of the work to be awarded in 2012 will be for offshore developments. The National Petroleum Construction Company (NPCC) announced in May 2012 that roughly $7bn of offshore work would be awarded before end-2012, mostly derived from large-scale expansion projects being tendered by the Zakum Development Company (ZADCO) and the Abu Dhabi Marine Operating Company (ADMA-OPCO), the two major offshore operators near the country.

One of the biggest sources of EPC work in the next few years will be ZADCO's expansion project on the Upper Zakum field, which seeks to raise recovery rates at the field to 70%, boosting production from 550,000 barrels per day (bpd) to 750,000 bpd by 2015. While construction work on the artificial islands at the Zakum complex has been in progress since 2010, there is much left for completion. Of the 13 projects to be awarded by ZADCO in 2012 and 2013, seven are associated with the Zakum developments. The Upper Zakum project will be developed under two separate contracts, EPC-1 and EPC-2. In July 2012 NPCC and France-based oil services company Technip won the EPC-1 contract for around $800m. This phase of the project focuses on the construction of platforms, flare towers and connecting pipelines to onshore facilities. The two companies will also be bidding for the much higher-valued EPC-2, estimated to be worth $4.2bn, to be awarded later in 2012.

About 20 km west of the Zakum field is Zirku Island, which is the major industrial centre for processing, storing and exporting the oil produced at Upper Zakum, Satah and Umm Al Dalkh. Already a site for expansion associated with the Satah full field development, the island will see more activity over the coming years, with ZADCO expected to award two EPC contracts for construction at Zirku by the second quarter of 2013. One is for the construction of a crude oil storage tank, the second for a water treatment plant, although at time of press values for the projects had yet to be released.

In early 2012 the other main offshore operator, ADMA-OPCO, issued tenders for projects on the full field developments at the Umm Al Lulu and Satah Al Rasboot fields. Valued at $1.55bn, according to MEED, two EPC packages have been tendered and should be awarded by end-2012. They consist of work on wellheads, pipelines and processing facilities for the Umm Lulu field. Two more contracts are to be awarded for pipelines, flares, bridges and infrastructure at Satah Al Rasboot.

**ONSHORE:** While most of the activity in 2012 is planned for the offshore segment, a number of new packages

EPC services in the GCC region are not always executed as scheduled. In 2011, only $7.5bn worth of EPC contracts were awarded, from an expected total of $173.5bn

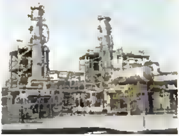
EOR techniques will enable the emirate to extract the greatest value from its oil reserves. The current recovery target for the industry is 40-45%.

are emerging in the onshore downstream subsector. As part of a $10bn expansion project for the Ruwais refinery, Takreer, the state owned refining company and Abu Dhabi National Oil Company (ADNOC) subsidiary, selected Korea's Samsung Engineering to undertake the project. Samsung netted the $2.5bn contract in June 2012 for the construction of a carbon black and delayed coker unit at the Ruwais facility, due for completion by 2015. Samsung has been highly active in the oil sector over the last five years, and the recent award follows the firm's successful $2.7bn bid for the utilities and offsite package tendered by Takreer in 2009.

**EMISSIONS PROJECTS:** A second Takreer EPC package, for flare-gas recovery, is intended to address two issues: it will redeploy gas that is flared without economic gain and, in doing so, reduce Takreer's carbon emissions. According to MEED, a wide range of technical bids were submitted in May 2012. As Abu Dhabi pushes to reduce its emissions, the world's leading EPC contractors will be keeping a close eye on two of the emirate's reduction projects. One project spearheaded by the Abu Dhabi Gas Liquefaction Company is designed to reduce the carbon dioxide and sulphur dioxide emitted from the Ruwais plant. While full construction packages have yet to be tendered, in April 2012 AMEC, a British engineering and project management firm, was awarded a contract for the front-end engineering design phase of the project, which is expected to last 10 months. The second project grabbing attention was initiated by ADMA-OPCO at the offshore oil and gas facilities on Das Island. Valued at around $50m, the project has attracted EPC bids from two international players, Greece's Consolidated Contractors Company and France's Tecnip, as well as the UAE-based Adyard. An award is expected by the end of 2012.

**ENHANCED OIL RECOVERY (EOR):** The push for emissions reduction projects in Abu Dhabi is manifesting in other ways, through the growing carbon capture and storage (CCS) industry. Masdar, the government-backed renewable energy company, issued a tender in 2012 for a CCS compression facility and pipeline between Mussafah and Rumaitha. The project is promising, given that it will help meet emissions goals, and the captured and re-injected carbon will boost crude oil output. However, despite the contract's progress, hydrocarbons firms remain concerned about high start-up and operating costs for CCS technology (see analysis).

"The future success of the emirate's oil and gas industry relies on embracing new technologies that aim to extract more out of mature reserves," José Pereira, the Middle East representative for Partex Oil and Gas, told OBG. "At present, target recovery factors in the sector is between 40% and 45%. Higher recovery factors can be achieved but at a price." As of early 2012, five firms had submitted proposals for management consultancy of projects, though there had not yet been any EPC tenders. With the government backing EOR development, firms will find Abu Dhabi ready to welcome them.



The UAE is among the four most attractive places for oil firms

# Big decisions

## Retendering rounds can lead to greater sector efficiency

With the 75-year concession agreements for Abu Dhabi's onshore oil production set to expire in 2014, executives at oil and gas companies throughout the world will stay keenly attuned to the re-tendering process. Predicting the outcome will not be easy as the new tenders come at a time of unprecedented change in the global energy market. State-owned Abu Dhabi National Oil Company (ADNOC) announced in April 2012 that it is evaluating many proposals as it prepares the final list of bidders for the 2014 concessions. Beyond that, little has been given away, and the industry is bracing itself for the possibility of significant changes to the status quo.

"Everything is being revisited," ADNOC's director-general, Abdulla Nasser Al Suwaidi, told the press in September 2011. "The terms, what would be required from the [international oil companies (IOCs)]... this is going to be a new agreement."

The stakes are high, given that onshore operations in the emirate account for over half of the UAE's total oil output – which by 2014 is due to exceed 3m barrels per day – along with sizeable reserves of natural gas. These resources are currently operated by a joint venture known as the Abu Dhabi Company for Onshore Oil Operations (ADCO), which includes four of the largest and most experienced IOCs. BP, Shell, Total and ExxonMobil. Each of these holds a 9.5% stake in ADCO, while Portugal-based Partex Oil and Gas holds 2%, and ADNOC retains the remaining 60%.

**STANDING GROUND:** The international majors are expectedly keen to retain their presence in the emirate, and have made their interest public. In September 2011 BP reiterated its intention to remain a leader in onshore activity in Abu Dhabi, and Shell Abu Dhabi chairman, John Barry, stated in October the same year that his company was "very interested" to carry on pumping oil in the emirate, as well as helping to develop its natural gas reserves.

On top of their interest to remain in the rink, the internationals will also be keen to secure themselves a good deal – one that allows them to form profitable partnerships and facilitates the best use of their technologies. "The challenge for Abu Dhabi is to find the right commercial framework to incentivise partners with the greatest technological expertise to work with ADNOC," Morten Mauritzen, the president of ExxonMobil Abu Dhabi, told OBG. Rex Tillerson, the chief executive of ExxonMobil, which also holds a 28% stake in the offshore operations of the Zakum Development Company, emphasised at the World Petroleum Congress in Doha in December 2011 that "the concession structure that served all parties well in the past is just no longer appropriate in today's environment, both in terms of cost and prices."

**GLOBAL SHIFT:** ADNOC's current onshore concessions have their origins in an agreement signed on January 1, 1939, when oil representatives on behalf of Western powers sought to guarantee supplies for their increasingly energy hungry economies. Fast-forward to the 21st century, and it is the economic powerhouses and growing populations of the East that are now eager to shore up energy security and supplies.

Recognising Abu Dhabi's weight in global oil markets, leaders from India, China, South Korea and Japan made a point to attend the January 2012 World Future Energy Summit held in the emirate, where the major players in the Abu Dhabi energy industry gathered. In that same month ADNOC announced that the 2014 concessions would be tendered publicly rather than negotiated privately, giving rise to speculation that the door is being opened to Asian multinational oil companies for the 2014 concessions.

This was followed by an announcement in March 2012 that the Korea National Oil Corporation is to form a $5bn joint venture with ADNOC, guaranteeing South Korea supplies of Abu Dhabi's crude from three oilfields, two onshore and one offshore. The development is expected to be completed by 2014 and may ultimately supply South Korea with 43,000 barrels per day. While the Korean deal does not necessarily reflect

A notable shift has taken place in the demand for oil and gas. While Western economies were the leading partners in the 20th century, in the 21st Eastern markets are competing for access.

IOCs and new Asian majors are both competing for space and access to new finds in the oil-rich UAE

the potential outcome of the 2014 retendering process, talk of Asian entrants into Middle Eastern energy markets has certainly been increasing, both in Abu Dhabi and throughout the world. Chinese oil and gas companies are on a rapid foreign expansion and the country has reportedly invested over $230bn in external mergers and acquisitions in the past five years, over half of which has been in natural resources.

**WEIGHING INCENTIVES:** Another factor to be considered when comparing the longer-established IOCs to national oil companies in China and other rising Asian powers is that the former group must ensure that their investments secure returns for their shareholders, while the latter are perhaps more concerned with guaranteeing a steady flow of oil than they are with the costs of their investments. As such, agreements with Asian players could give Abu Dhabi more power to negotiate deals that allow the emirate to retain a greater share of revenues. Relatively inexperienced Asian entrants will be keen not only to tap Abu Dhabi's reserves, but also to benefit from the decades of industry expertise that has accumulated there.

Following the January 2012 signing of a cooperation agreement between ADNOC and the China National Petroleum Corporation (CNPC), CNPC has begun studying five onshore and two offshore blocks in Abu Dhabi. Its vice-president said in June 2012 that he expects to have a firm agreement signed by the third quarter of the year and to begin drilling in 2013. The UAE's energy minister, Mohammed Al Hamli, commented that it is natural for his country to want to strengthen relations with China and other nations in the East Asia that are already the major importers of Emirati crude. At the same time, there are clearly strong incentives for Abu Dhabi to continue its cooperation with the older IOCs. As the emirate's fields mature and more advanced equipment is required to keep both the oil and the gas flowing, the government will be keen to secure the very best technological offering that it can. "Conventional developments in the oil and gas sector have become commoditised and can be performed by many companies around the world. More mature fields require unconventional techniques, expertise and new technology; this is where IOCs can add the most value," Abdulkarim Al Mazmi, the general manager and chief representative of BP UAE, told OBG. Certainly, price will not be the only factor in the government's decision.

From the perspective of the older IOCs, too, there is good reason to keep a foothold in Abu Dhabi. Even with large international companies looking to invest in the wave of new unconventional discoveries outside the region – such as North American shale gas – and as geopolitical tensions and economic uncertainty drive volatility in oil markets, these companies will also want to keep a balanced portfolio of investments. As an established and politically stable focal point for the Middle East's energy industry, Abu Dhabi is considered a safe choice by watchful shareholders.

The 2011 "Global Petroleum Survey" by the Fraser Institute, which surveyed 478 companies about the various barriers to oil and gas investments throughout the world, found that the UAE was among the Middle East's four most attractive jurisdictions, along with Bahrain, Qatar and Oman. The same perspective holds for clean technology investments, as an onshore investment in the middle of the Arabian Desert may seem relatively low risk, particularly in the wake of BP's 2010 oil spill in the Gulf of Mexico.

**LOOKING AHEAD:** As 2014 approaches, all stakeholders will be keeping a close eye on how new energy investments play out in the region. Recent bidding rounds suggest that the rise of new entrants, especially from China, will continue apace. Bidding rounds in Iraq between 2009 and 2011, for example, received more than one-third of the total expected production that was awarded to the CNPC.

However, the Iraqi industry is in many ways – politically, economically and technologically – a world apart from its counterpart in the UAE. Other countries in the region, such as Oman and Bahrain, have in recent years continued to engage IOCs in order to boost flagging output, develop unconventional gas fields and tap difficult heavy oil reserves.

One possibility some experts have suggested is that Abu Dhabi could decide to alter the structure of the concessions such that more straightforward projects would be handled by new entrants and the more advanced reservoirs remain reserved for the better established players. The government may also decide to split the current ADCO mega-consortium, assigning different companies to different assets, and thereby allowing international rivals to implement their individual technologies to the fullest extent.

The government of Abu Dhabi has numerous options for addressing new concessions, and the new structure is expected to reflect the emirate's long-term vision for the sector. Additionally, the outcomes of the current reorganisation will likely shape the debate on future tenders, as in 2018 standing concessions for Abu Dhabi's offshore reserves will be up for renewal.

The structuring of tenders for new concessions is still under way, though it is expected that more difficult projects will be extended to experienced players.

Sultan Al Jaber, CEO, Masdar

# Thinking ahead

## Sultan Al Jaber, CEO, Masdar, on the UAE's future energy mix

The world population is expected to reach 9bn by 2050 and future energy demand will put a tremendous strain on our limited natural resources. We must develop and deploy new energy sources while reducing the effects of climate change and environmental degradation. To this end, the UAE is making several major investments to create a bridge between today's fossil fuel economy and an energy-diverse future. Sitting above the world's seventh-largest proven oil reserves, the UAE made the strategic decision to re-invest its wealth into new economies, peaceful nuclear power, renewable energy, and introduce clean technologies that can be used in place of traditional hydrocarbon fuels in the future. We believe diversifying our energy mix promotes national economic growth and security.

The UAE's legacy in sustainable development originated with the nation's founding father, Sheikh Zayed bin Sultan Al Nahyan, who stressed the importance of preserving natural resources for future generations.

Sheikh Zayed insisted that the UAE move away from a reliance on hydrocarbons. His directions to reduce gas flaring to lessen carbon dioxide emissions, in addition to his environmental conservation efforts, inspired today's leadership to take concrete steps towards developing a sustainable, knowledge-based economy.

Like the rest of the world, the UAE faces domestic energy challenges. To diversify our energy resources the UAE is investing heavily in renewable energies. We are not alone in the Gulf region in recognising that there is no "one-size-fits-all" solution to meet the growing demand for energy.

Today, our oil and gas sector uses innovative technologies to improve extraction efficiency and reduce emissions. By adopting carbon capture and storage techniques, we collect carbon dioxide from power stations and industrial facilities and inject it into aging oilfields for enhanced oil recovery (EOR) – liberating it for domestic electricity generation. This method reduces natural gas use for EOR and helps prevent the release of high volumes of carbon dioxide into the atmosphere.

Peaceful nuclear energy is also part of the energy mix and is expected to provide 25% of the UAE's electricity demand by 2020. The government's decision to adopt nuclear energy will spur economic growth by providing reliable supplies of power to factories, creating new jobs while also reducing carbon emissions.

Transitioning the UAE – and the rest of the world – to using a diverse mix of energy will not happen overnight. The Abu Dhabi Economic Vision 2030 is a commitment to transforming its resource-based economy to one that is knowledge-driven and supported by new, cutting-edge industries. A core pillar of this transformation is Masdar, a multifaceted, for-profit company focused on the development and deployment of renewable energy and clean technology.

Masdar is evidence of the UAE's commitment to develop a diverse mix of energy resources in the future. The company combines higher education, research and development, venture capital, large-scale renewable energy development and carbon reduction strategies to catalyse economic growth for future energy industries. Current local projects include the 10 MW photovoltaic solar power plant in Masdar City, the largest grid connected plant in the region and Shams One, the largest concentrated solar power (CSP) plant in the region and one of the biggest in the world.

In the UK, the firm is jointly developing the planned 1000-MW London Array, one of the world's largest offshore wind farms. Through a joint venture in Spain, Masdar developed Gemasolar – the first utility-scale CSP plant capable of delivering energy 24/7, and has also developed two 50-MW parabolic trough plants.

As an oil-producing nation with expertise in traditional energy technologies, we have a responsibility to invest in the development of renewable energy. The UAE is using its wealth to fund a transition from a resource-based economy to one driven by intellectual capital and technology. This will ensure we maintain our position as energy leaders well into the future and contribute to sustaining our economic growth and social welfare.

By 2050 3000 CCS projects will be needed to mitigate climate change

# Enhanced recovery

## Getting more out of current reserves while reducing $CO_2$ emissions

As high oil prices give policymakers greater flexibility to invest for the future, the government is likely to spend more money on supporting the development of enhanced oil recovery (EOR) in the years ahead. "The days of easy oil are over," Mohamed Al Hamli, the oil minister for the UAE, said at the World Petroleum Congress in December 2011. "We are forced to go down the road of enhanced oil recovery." In the UAE, where local demand for natural gas is surging, there is an added incentive to find a substitute for the large amounts of gas that are currently injected for the purpose of increasing crude oil production.

One possible solution is to use carbon dioxide as an alternative for the gas that is pumped into the ground to boost petroleum output. International oil companies are optimistic about the potential for developing carbon capture and sequestration (CCS) technology in Abu Dhabi, to use carbon dioxide in EOR. "The industry has realised that Abu Dhabi has oilfields of a scale and nature that are suitable for this sort of technology," Morten Mauritzen, the president of ExxonMobil Abu Dhabi, told OBG. "We have been working with Abu Dhabi National Oil Company (ADNOC) and Masdar to explore sequestration and injection technologies."

**TESTING THE FIELD:** In 2012 the Abu Dhabi Company for Onshore Oil Operations (ADCO) completed a pilot project that involved injecting 1.2m standard cu feet per day (scfd) of carbon dioxide into the Rumaitha field. According to Mohammed Zubair Kalam, special core analysis discipline expert at ADCO, the oil recovered at the field could be increased by up to 10%, and using this technology on all Abu Dhabi's onshore fields would add 7bn barrels to crude production – over 7% of the UAE's total proven reserves.

However, some stakeholders have stressed that carbon dioxide remains attractive only as a limited-term option. "Abu Dhabi does have real potential for CCS technology, but the constraints are linked to high start-up and operating costs," Neri Askland, the country representative for Statoil, a Norwegian oil and gas firm, told OBG. According to ADCO, current production costs are around $5 per barrel, but this could top $20 per barrel with carbon dioxide injection. José Pereira, the Middle East representative for Partex Oil and Gas, explained, "At the current stage of life of existing reservoirs, we believe that there is no significant use [for CCS]. Investing in this type of extraction infrastructure will only be beneficial in the medium to long term."

**CHALLENGES:** Investors must weigh the costs and benefits of employing carbon dioxide capture and injection methods, and one challenge is ensuring that the developments in CCS technology keep pace with advances in EOR methodology. "EOR and CCS are not only complimentary, but they need one another," said David Robinson, a senior research fellow at the Oxford Energy Institute. Other challenges include the inability of suppliers and buyers of captured gas to agree on an appropriate price, both in the UAE and worldwide. Furthermore, in spite of an estimate by the International Energy Agency that 3000 CCS projects are needed by 2050 to mitigate the most damaging effects of climate change, some 11 such projects were cancelled or delayed in 2011, according to the Australia-based Global Carbon Capture and Storage Institute.

Still, Abu Dhabi appears committed to the technology. In early 2012 Masdar, the government-backed renewable energy and clean technology research and development centre, and ADNOC announced that sufficient progress had been made on the commercial front to allow a tender to be issued for a carbon capturing facility near the Emirates Steel plant to be pumped to the nearby Rumaitha oilfield.

**MORE OPTIONS:** Another method is nitrogen injection, which takes considerable effort. A joint venture between ADNOC and Germany's Linde Group, known as Elixier, is looking to produce nitrogen for injection to improve output at the Habshan field with forced pressure. The project has several related engineering, procurement and construction contracts, including the construction of a $160m plant by Samsung Engineering by 2014.

A pilot carbon dioxide injection project at the Rumaitha field increased output by as much as 10% with the injection of 1.2m scfd of $CO_2$


Sour gas projects offer new resources and exportable experience

# Getting to the gas

## Rising demand requires new strategies for sourcing energy

Some $20bn is being invested to tap deeper into Abu Dhabi's large reserves of natural gas. Consumption is surging, however, and despite having significant reserves the emirate remains a gas importer. The pressures of demand are leading the government to seek new and innovative techniques for getting the gas it needs. "There are three stages of gas," said John Barry, the country chair for Shell Abu Dhabi, told OBG. "At first it is viewed as a waste product that is flared. In the second instance, it is captured, but any productive use of it is seen as positive. Finally, the true value of gas is realised when subsidy structures and the uses of gas are re-examined. Abu Dhabi is currently moving into the third phase."

**SOUR GAS:** The emirate's latest solution to the gas equation is also one of its most technologically pioneering: to produce and process gas from the onshore Shah field, most of which is deemed "sour" because of its high content of hydrogen sulphide. At a time when only a select few countries are looking to develop their sour gas reserves, this $10bn investment is considered advanced in the world's upstream gas industry and could make Abu Dhabi an expert in the field. "Given the sheer scale and scope of the scheme, Abu Dhabi National Oil Company (ADNOC) could emerge as a global leader in sour gas development," the consultancy Deloitte commented in a 2011 report called "Show Me the Money – Middle East Energy and Resources: Managing scarcity for the future".

With some 40% of global gas reserves thought to be sour, expertise in sourcing such gas will be increasingly valuable. "Abu Dhabi's work with sour gas is as important as the shale gas revolution occurring in other parts of the world," Saif Al Ghafli, the chief executive of Al Hosn Gas, a joint venture formed in 2010 between ADNOC and US firm Occidental Petroleum, told OBG. "Our project is the first to develop gas with such a high concentration of sulphide. The technology and expertise that Abu Dhabi will accumulate in the coming years can be exported to other parts of the world," he said. Due for completion in 2014, the Al Hosn project will develop several systems for improving gas collection, as well as construct new gas and liquid pipelines and processing techniques for 1bn cu feet of high-sulphur-content gas. The new capacity is expected to yield production of around 540m standard cu feet of gas per day (scfd), as well as a significant amount of condensate and natural gas liquids. Additionally, it is expected that some 3.4m tonnes of sulphur will be produced, processed and granulated every year, which will then either be exported or put to use in the emirate's growing fertiliser industry. "Countries like Morocco, Jordan and China purchase significant quantities of sulphur to feed their fertiliser production. Many other countries also show a growing demand in sulphur for medicine and pharmaceutical production," Al Ghafli said.

Sour gas reserves are accompanied by sulphur deposits, which can themselves be mined and utilised in fertiliser production.

Although the current efforts are concentrated on Shah field, the emirate is also interested in developing sour gas reserves from Bab field, which will likely be used as feedstock for electricity production. Like Shah, this field was tendered in 2007 and has attracted interest from France's Total, although ADNOC has said that it does not expect to make an award for Bab before 2015.

**INTEGRATED GAS DEVELOPMENT:** The development of sour gas comes on the back of another recent investment nearing $10bn in value. The Integrated Gas Development (IGD) was initiated in 2007 by GASCO, a joint venture between ADNOC, Shell, Total and Partex. Its main purpose is to allow for gas produced at the Umm Shaif field to be transported to a new onshore processing complex known as Habshan 5, whose output can be used for local consumption. Ethane produced at the plant is to be fed to the Borouge petrochemicals complex – itself undergoing an ambitious expansion – while naphtha, propane and butane are to be exported.

The construction of Habshan 5 is the focal point of the IGD project. Some $9bn worth of construction work was parcelled out in 2009 to a host of EPC firms, with a Japanese-Italian consortium of JGC Corporation and Maire Tecnimont taking the majority in a $4.7bn award. The UK's Petrofac and Korea's GS Engineering secured

Despite its reserves, the emirate still depends on LNG imports

a $2.1bn contract for a natural gas liquids processing train at Ruwais, while a second Korean firm, Hyundai Construction and Engineering, snapped up the $1.7bn construction works for utilities and offsite facilities and US firm CB&I won a $533m contract for the construction of propane, butane and pentane storage facilities. Encouragingly, especially for such a large scale energy project, Habshan 5 is ahead of schedule: the project is due to come on-line in 2013, but was reported to be 90% complete in May 2012.

In addition to putting gas resources to better use, the facility will house new sulphur recovery units expected to further cut down on emissions. This is in line with several emissions-reduction projects currently being undertaken in the emirate, many of which are yielding new engineering, procurement and construction work.

**IMPORTS:** Despite the significant investments made in technologies and facilities over the past few years, it is unlikely that local production alone can satisfy Abu Dhabi and the UAE's short- and medium-term demand for gas. The use of imported natural gas and liquefied natural gas (LNG) in Abu Dhabi's energy mix is likely to continue growing in the coming years, demonstrating that policymakers have formed realistic expectations of the emirate's near-term production capacity and are taking steps to best address the situation. In fact, the government made a decision more than a decade ago to make gas imports a fixture of its energy mix by founding Dolphin Energy, a massive gas-import project between Qatar, Abu Dhabi and Oman that was spearheaded in 1999. The initiative developed into a joint venture of the same name, and by 2002, Occidental Petroleum and Total had become shareholders alongside the government owned investment company, Mubadala. In 2007 gas began flowing into the emirate via the newly constructed pipeline stretching from Qatar's vast North gas field through a sub-sea pipeline to Taweelah in Abu Dhabi and on to Oman.

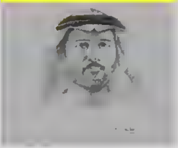
Although gas flow has been steady since 2008, the project continues to generate more work. In April 2012 Dolphin Energy announced that Rolls Royce Dresser will install three new gas compressors, while a tender has been issued for an upgrade to the gas compression facilities at Ras Laffan in Qatar. Delivering around 2bn scfd, the Dolphin pipeline contributes a significant portion of the nearly 6bn scfd consumed in the UAE. But as local demand for gas continues to surge, the UAE and Qatari governments will have to address increasing the supply, and at what price. Qatar is currently providing the gas at a fraction of market rates, but for the UAE to secure additional gas at the same price is likely to be a challenge. Furthermore, Qatar and the UAE are currently operating under the phase one agreement of the Dolphin pipeline, which stipulates a delivery of 18.6bn cu metres of gas per year through 2032. At this time, there are no talks of adjusting the agreement.

However, other factors are working in Abu Dhabi's favour. As new supplies of shale gas are set to come on-line in Australia and other regions, Qatar may see decreased demand for its LNG supply from Asian buyers in the future, which in turn could free up more supplies for neighbouring Abu Dhabi. Furthermore, Abu Dhabi has several alternative energy sources entering the mix, notably four nuclear plants that were announced in July 2012 and utilities-scale solar power plants, freeing up gas for industrial and other uses.

Although Abu Dhabi is aiming to meet 25% of its energy needs from nuclear generation by 2020, the first of four upcoming plants will not come on-line until 2017. According to research published in 2010 by the Dubai Initiative in cooperation with the Harvard Kennedy School, the UAE will likely have to increase imports to match demand. Perhaps in recognition of this reality, the government of Abu Dhabi has thrown its weight behind plans to secure the country's LNG import capability. In partnership with the International Petroleum Investment Company (IPIC), in early 2012 Mubadala indicated its intention to build a new LNG reception facility in Fujairah through the newly established Emirates LNG project. In addition to boosting supply, the project, which is still in the engineering phase, will allow LNG shipments to the UAE to avoid the Strait of Hormuz. The first deliveries to Fujairah are expected in either 2014 or 2015 and the facility will have a total reception capacity of 1.2bn scfd, according to Mubadala.

**RE-INJECTION:** Another solution that continues to generate excitement focuses on finding substitutes for the gas that is currently re-injected into oilfields. Re-injected gas amounts to as much as 38% of the UAE's total production, says the Dubai Initiative report. Since the gas is "associated" – a by-product of oil-producing wells – it will be produced in increasing quantities over the coming years as the emirate pushes to boost its oil production. This creates greater incentives for finding alternative gases for oil field injection. $CO_2$ offers one option: not only would it free up natural gas supplies, but, if implemented on a wide scale, it would also reduce emissions. If the UAE were able to replace natural gas injection schemes entirely with carbon or nitrogen, 18bn cu metres per year of gas could be freed up for local domestic, industrial and retail consumption.

If the emirate's natural gas re-injection process could be replaced entirely with $CO_2$ or nitrogen injection, roughly 18bn cu metres of gas could be freed up for other purposes every year.


Mohamed Al Hammadi, CEO, Emirates Nuclear Energy Corporation

# Positive impact

## OBG talks to Mohamed Al Hammadi, CEO, Emirates Nuclear Energy Corporation (ENEC)

**How environmentally sound and commercially competitive is nuclear energy compared to traditional hydrocarbons sources, specifically for the UAE?**

**AL HAMMADI:** Nuclear energy is a safe and clean industry which will provide economic, efficient and reliable electricity to the UAE. The UAE has long been reliant on fossil fuel-generated energy so going forward nuclear power will diversify the UAE's energy portfolio for electricity generation and industrial development. This portfolio includes nuclear, renewable and a reduced use of carbon energy. Nuclear energy, however, will give us a great deal of flexibility for future planning when addressing our energy requirements. In terms of environmental benefits, we are expecting to save more than 12m tonnes of $CO_2$ annually with the four planned nuclear energy plants, which is a major reduction in emissions.

**What steps are being taken to ensure nuclear technology in the UAE meets global safety standards?**

**AL HAMMADI:** We adhere to high standards when it comes to quality and safety in our organisation and facilities. When the government issued the UAE Policy on the Peaceful Use of Nuclear Energy in 2008, the country committed to meeting the highest safety quality and non-proliferation standards. What was planned at that time is being implemented now, and we continue to raise the bar in terms of safety standards.

When it comes to technology, we are using generation III nuclear reactors, which have the latest nuclear safety systems. ENEC is continuously expanding the culture of safety across the organisation. We have a high number of skilled and experienced employees that bring decades of expertise in nuclear construction and operational experience, and this team is developing safety programmes and passing on their experience to our Emirati staff. We also have a panel of experts, called the Nuclear Safety Review Board, that analyse safety, security and programme developments that relate to ENEC. Lastly, ENEC is committed to comply with all the standards and regulations of the Federal Authority for Nuclear Regulation (FANR), which oversees our work and our plants in Baraka.

**What initiatives are under way to develop indigenous expertise in nuclear engineering?**

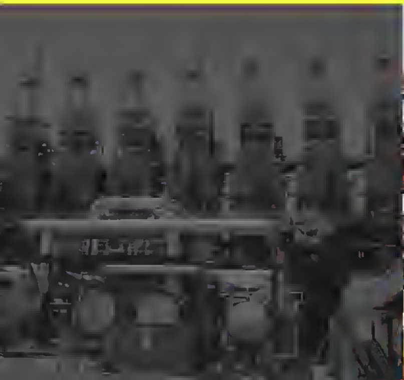
**AL HAMMADI:** The industry will create new, high-value jobs, which in turn will require highly skilled workers. We are involved in an ambitious human capital development programme, which is key to the success of our industry. UAE nationals will play a major part of the operation of these facilities, and the human capital requirement is set to nearly quadruple over the next few years. ENEC will require around 2000 people to operate the power plants. We are also participating in building the education infrastructure to meet the industry's requirements. Khalifa University has developed a nuclear engineering programme, which is well received by students. This and other education programmes will help develop the new skill-sets required.

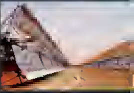
**To what extent will the nuclear energy sector contribute to Abu Dhabi's economic and social development in line with Economic Vision 2030?**

**AL HAMMADI:** Nuclear energy will play a major role in economic development. Electricity requirements are growing 9% per year, so a healthy energy mix is crucial. Plants provide base-load electricity for key sectors, such as industry and transport. Factories that need continuous electricity are complementary to nuclear power, and this demand will support energy-intensive industries. Small and medium-sized enterprises (SMEs) will also grow, as they can provide services, materials and support for the sector. Abu Dhabi has an excellent SME community that serves heavy industry and the oil and gas sector. Catering to the nuclear industry will extend their business. Another important effect of the sector will be the contribution to infrastructure development in Ruwais and Al Gharbia. Housing, education, health and social infrastructure will be enhanced to support the long-term development of these industries.

# Utilities

**Demand on the sector grows as population expands**
Upgrading the sewage system to reuse wastewater
Electricity conservation drives green improvements
Nuclear energy to be an alternative to hydrocarbons





Electricity is transmitted both locally and to neighbouring emirates

# The essentials

## As economic growth continues, projects are under way to ensure adequate support

With rapid population growth and an increasingly diverse economy, Abu Dhabi's utilities demand – including electricity, water and wastewater services – has grown considerably in recent years. The sector will need to expand at around 6-10% to meet growing water and electricity demand, meaning that utilities provision remains a top priority. Alongside meeting demand growth by increasing fossil fuel capacity, Abu Dhabi has taken steps to invest in low-carbon options such as nuclear energy as well as renewables (including solar and wind) and is also introducing conservation initiatives.

**SECTOR REFORM:** Prior to the late 1990s, provision of water and power to Abu Dhabi consumers was handled by the Water and Electricity Department. In 1998, recognising the need to meet growing demand for water and power, the government unbundled production, transmission and distribution, establishing new government-owned entities and providing opportunities for the private sector to participate in production.

The Abu Dhabi Water and Electricity Authority (ADWEA) is responsible for overseeing the electricity and water sectors in the emirate. Launched in 1999, ADWEA is entirely owned by the government of Abu Dhabi, but it is a separate legal entity with financial and administrative independence. ADWEA has a number of wholly owned subsidiaries, including Abu Dhabi Water and Electricity Company (ADWEC), Abu Dhabi Transmission Company (TRANSCO), Abu Dhabi Distribution Company (ADDC) and Al Ain Distribution Company (AADC).

**BREAKDOWN:** ADWEC is the single buyer and seller in the sector, purchasing power and water from producers, and then selling to distribution companies under a bulk supply tariff, and contracts for energy exchanges to the Northern Emirates and GCC. ADWEC prepares demand forecasts and is responsible for purchasing and supplying fuel to the power and water producers. The single buyer model is what allows private operators to enter the sector and provide external project financing, with ADWEC guaranteeing to buy all available power and water under long-term purchasing agreements.

Government operator
ADWEC is the sole buyer and seller in the water and electricity sector, coordinating production, distribution, subsidies and exchanges both locally and with other emirates.

Meanwhile, TRANSCO receives supplies of power and water from production companies and transmits this to the distribution companies, including to other emirates and GCC Interconnection Authority member states. The company is responsible for the transmission of electricity at 400, 220 and 132 kV within Abu Dhabi, the Northern Emirates and the GCC grid. Water is transmitted through 800- to 1600-mm-diameter pipelines installed throughout Abu Dhabi and the Northern Emirates. Growth in the sector has required TRANSCO to proactively manage its asset base. "Our assets are young when compared to other transmission companies around the world," David Copestake, managing director of TRANSCO, told OBG.

TRANSCO's ability to manage on a global scale earned it the PAS 55 accreditation, a British standard for the management of physical assets, making it the first multi-utility in the region to reach this level of performance. Its maintenance activities are also highly ranked, having achieved class-leading performance in six out of 12 categories, according to the International Transmission Operations and Maintenance Study. TRANSCO's success demonstrates its capacity to support the strategy of the state's Economic Vision 2030.

"TRANSCO aims to complement the physical and economic development of the UAE through a comprehensive and balanced strategic plan that will achieve performance, sustainability and optimised organisational capabilities," said Abdulla Saif Al Nuaimi, director-general of ADWEA and chairman of TRANSCO.

Rounding out the system are distribution companies (ADDC and AADC), which distribute power and water to individual customers, providing electricity at 11/33 KV. ADDC has about 216,000 customers, while AADC reaches around 100,000 clients.

Overseeing the sector is the Regulation and Supervision Bureau (RSB), an independent body established in 1999 to ensure the availability of potable water and electricity. It also serves as a licensing body for firms seeking to undertake generation, transmission, distri-

bution, sale or treatment of electricity, water and wastewater in Abu Dhabi. The RSB then monitors, modifies where needed and enforces conditions in these licences.

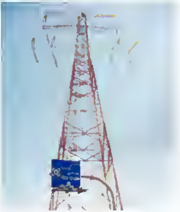
**PRODUCTION:** Although ADWEA wholly owns the transmission and distribution firms in the sector, production is mainly undertaken by independent water and power producers (IWPPs). ADWEA also holds a stake in these entities. Each IWPP in Abu Dhabi – there are currently nine – is structured as a joint stock firm with 40% held by a foreign partner, usually a consortium. The remaining 60% is owned by a local holding company. Of this 60%, 10% is held by ADWEA and 90% by Abu Dhabi National Energy Company (TAQA). In turn, TAQA is 51% owned by ADWEA, with 24.1% held by the government-affiliated Farmers' Fund. The remaining 24.9% is publicly traded on the Abu Dhabi stock exchange.

The first IWPP was tendered in 1998, and today IWPPs account for over 95% of ADWEA's power and water generation. IWPPs supply power and water to ADWEC through long-term (typically 20-year) power and water purchase agreements (PWPAs). Payments under these have two components: capacity (or availability) and output (or energy) payments. The former covers the plant's fixed costs and is paid whether or not the plant is producing, while the latter pays for variable costs incurred when the plant is generating electricity or producing water. In addition, the IWPP does not pay for the fuel it consumes – this is provided by ADWEC under an energy conversion arrangement covered by the PWPA, which eliminates fuel risk for the private firms.

**FINANCING THE FLOW:** IWPP contracts are awarded via a competitive bidding process that is managed by ADWEA. The authority is responsible for pre-qualifying bidders, issuing requests for proposals and selecting the successful bidder for the project. For greenfield projects, the primary criterion for a winning bid is the average price at which the IWPP will sell electricity and water to ADWEC. The IWPP partner is also responsible for securing project financing. Although sourcing financing was a major challenge in the early days of IWPPs, when this type of entity was not well known, securing funds has become easier as Abu Dhabi has built up an excellent track record in this field.

According to Nicholas Carter, director-general of RSB, Abu Dhabi's IWPPs are an attractive investment. Since output is purchased by a single buyer (ADWEC), under a long-term contract, this ensures secure cash flow. Second, the existing structure allows for transparent and competitive bidding with the establishment of a published tariff for a period of at least 20 years.

Bidding rules require proposals to specify a supply price to ADWEC that will allow shareholders to earn at least a 13% rate of return on equity, providing a minimum benchmark for all potential investors. This means the equity injection is relatively low compared with the loan amount – some 80% of the project's capital cost. This is, of course, one of the great advantages of this form of project finance, as the bulk of the financing to build – coupled with build-risk – comes from international lenders and not from the government. Thus, the presence of an independent regulator is important to



Peak electricity demand reached 9749 MW in 2011

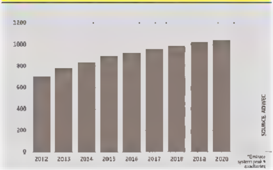
investors and lenders alike; the body provides assurance, given that Abu Dhabi has successfully seen the establishment of nine IWPPs over more than a decade.

**GROWING DEMAND:** Abu Dhabi continues to expand capacity for generating electricity. In 2007 the peak electricity demand stood at 6644 MW, according to ADWEC. By 2010 this had grown to 8563 MW and to 9749 MW in 2011. These figures are reflective of demand from the emirate of Abu Dhabi, as well as exports to the Northern Emirates through the Federal Electricity and Water Authority (FEWA) and the Sharjah Electricity and Water Authority (SEWA). This increase in electricity usage can be attributed to the rapid development of Abu Dhabi, including of hotels, office buildings and malls, as well as the accompanying rise in population with the increasing number of foreign workers.

Peak global demand (that is, Abu Dhabi plus exports to FEWA and SEWA) is expected to climb to 16,244 MW by 2015. This is due to continued growth in residential, commercial and industrial demand in Abu Dhabi, as well as the growing draw on power plants given the increasing reliance on ADWEC by Abu Dhabi National

The operational structure of the sector makes it an attractive investment opportunity, because it guarantees both long-term contracts and cash flow as well as a minimum rate of return to investors

Peak water demand forecast, 2012-20 (m gallons per day)*



*Emirate system peak + auxiliaries

About 26% of the emirate's gas is sourced locally, with the remainder imported from regional partners.

Oil Company (ADNOC) for electricity supply, and an expected jump in exports to the Northern Emirates.

**WIDER NET:** To support energy security initiatives, TRANSCO's transmission system will increasingly integrate with the Emirates National Grid and GCC electricity grid. "The GCC-wide electricity grid will not only enhance security of supply, but also reduce spinning reserve requirements and facilitate power transfers across the region, while providing a mechanism to mitigate against gas supply shortages and uncertainty in the levels of demand and growth," Copestake said. It will also reduce plant procurement costs by improving efficiency and plant load factors, as well as reducing overall operating costs in the integrated electricity market.

Meanwhile, exports to the Northern Emirates are expected to rise sharply in 2013, as the transmission system reinforcement is completed. Currently, the primary constraint on exports from Abu Dhabi to the Northern Emirates is transmission capacity. However, in March 2011 Sheikh Khalifa bin Zayed Al Nahyan, the UAE's president, announced that ADWEA would build an enhanced transmission system to facilitate more electricity exports to the Northern Emirates. To date, ADWEA has invested around Dh5.3bn ($1.44bn) to establish a 400-kV network that will link all load centres in the Northern Emirates and be interconnected with ADWEA's power system. The additional draw on ADWEC's resources will be substantial, with Abu Dhabi's peak exports to FEWA and SEWA expected to rise from about 2000 MW in 2011 to 2500 MW in 2013.

**INPUTS:** This rise requires additional fuel for transmission lines and production. In 2010 natural gas was the main fuel consumed by the emirate's power and water plants. ADWEC purchased gas from two sources: Dolphin Energy and Abu Dhabi Gas Industries (GASCO). The former, a joint venture between Abu Dhabi's government-owned Mubadala Development Company, Total and Occidental Petroleum, produces and transports gas from Qatar's North Field to Abu Dhabi. The latter is a consortium of ADNOC, Shell, Total and Partex.

To address the growing energy demand, the government is encouraging consumers to use less. Sector regulators ADWEA and RSB have undertaken several educational initiatives with the aim of effecting change without modifying pricing levels.

In 2010 ADWEC purchased about 74% of its gas from Dolphin Energy, with the balance coming from GASCO. To meet remaining need, ADWEC buys small amounts of crude oil and gas oil from ADNOC. However, ADWEC must purchase these fuels at market prices, making this a much more costly source for powering plants.

Moving forward, it is unclear from where ADWEC will source its rising demand from natural gas. Domestically, the Shah natural gas fields could prove to be an additional supply, and Dolphin may be able to increase exports to Abu Dhabi. An alternative being considered is the import of liquefied natural gas (LNG), a growing possibility following a March 2012 announcement by Mubadala Oil and Gas, a division of Mubadala Development Company and International Petroleum Investment Company, an Abu Dhabi government-owned entity that invests in energy related industries, that it was establishing a joint project, Emirates LNG, to import natural gas. This project would likely include the development of a new LNG regasification facility in Fujairah.

**REDUCING DEMAND:** While increasing supply is one solution for addressing growing power and water needs another option is to reduce demand. The government is somewhat constrained in this regard because of a number of economic diversification efforts that will necessarily involve more power usage, such as new industrial and petrochemicals projects.

Accordingly, ADWEA and RSB have been coordinating on a number of public awareness campaigns to reduce demand for electricity from residential customers. However the sector's heavily subsidised prices, which are below average production costs, make encouraging conservation a challenge. Still, RSB and ADWEA have embarked on a range of educational initiatives about power and water usage and the extent of government subsidies, which could reduce consumption even without pricing changes (see analysis).

Perhaps the most publicised effort from RSB, in conjunction with ADDC and AADC, has been its new utility bill for water and electricity issued in March 2012. In addition to providing information regarding usage, the new bill also indicates the amount of government subsidy paid for the of water and electricity consumed. Residential customers will also be able to see "ideal" and "above-ideal" consumption ranges for different property types. For example, the ideal amount of electricity usage for a flat is up to 20 units per day, while the daily figure for water is given as 700 litres. About 80% of utilities bills in April 2012 fell within the ideal range, but these rates could go down in the summer months as the demand for air conditioning rises.

Another RSB programme seeks to educate consumers about peak demand, aiming to reduce electricity usage during weekday hours of 2-8pm, when draw on the power grid is highest. As of mid-2012, this programme, run by RSB's Powerwise, was still in early stages, with the regulator working to recruit 400 volunteers for a trial that would last about 16 months. Those who agree to join the programme will have a monitor installed in their house, which will make it easier for users to see and optimise energy use. Participants will nominally be

"charged" different prices for electricity usage based on time of day, but actual bills will not change. However, at the end of the trial any savings earned will be passed on to participants. These programmes are only a sample of the various initiatives RSB is undertaking with the launch of two new offices, Powerwise and Waterwise, which aim to provide a range of services to help consumers use power and water wisely.

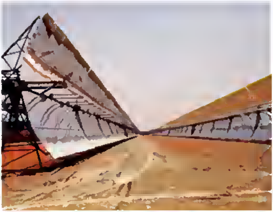
**ALTERNATIVE SOURCES:** The government is also considering alternative methods of generating electricity, such as nuclear energy and renewable sources. The goal is to supply 7% of the emirate's generation capacity using renewable sources by 2020 (see analysis).

The push to invest in renewable energy is driven primarily by Masdar. This government-owned entity has three integrated business units and an independent, research-driven graduate university, Masdar Institute of Science and Technology. The three business units are Masdar Capital, which invests in clean energy and sustainable technologies; Masdar Clean Energy, which develops and invests in large-scale renewable power projects such as solar and wind farms; and Masdar City, a cleantech cluster and special economic zone under construction as a sustainable urban development.

Masdar is also responsible for Shams 1, a 100-MW concentrated solar power (CSP) plant, one of the largest CSP plants in the world and the first of its kind in the Middle East and North Africa. The plant is located in the western region of Abu Dhabi and should be completed by second-quarter 2013. It is being developed under a 25-year build-own-operate contract by Shams Power Company, a special purpose vehicle 60% owned by Masdar, 20% owned by Total and 20% owned by Abengoa Solar. Masdar has also invested in a photovoltaic (PV) solar plant, a 10-MW facility in Masdar City, and plans to build a 100-MW PV plant called Nour 1.

In 2008 the government published a policy for the evaluation and potential development of peaceful nuclear energy as an alternative for power and water generation in the UAE. The Emirates Nuclear Energy Corporation (ENEC) is responsible for the deployment, ownership and operation of nuclear energy plants in the UAE. It currently oversees the work of Korean Electric Power Corporation, the contractor chosen in 2009 to design, construct and operate four nuclear energy plants to be located in Al Gharbia. The first of the four plants, each of which will have a capacity of 1400 MW, is to come on-line in 2017, with one additional facility completed each year until 2020. Nuclear energy will provide baseload electricity to power growth while saving 12m tonnes of $CO_2$ emissions each year.

**CLEAN UP:** Another element of utilities – the sewer system, mostly pertaining to the disposal of wastewater – is equally important given development and economic growth. A growing population creates a growing burden on the system, and the government has accordingly invested in an upgrade and expansion of sewage transfer and treatment. Efforts include building four new sewage treatment plants, which are being established in partnership with the private sector on a build-own-operate transfer basis. They are known as independent sewerage treatment plants (ISTPs) and are similar to IWPPs in terms of ownership structure. Following a bidding process in 2008 to determine these partners, two entities – Al Etihad Biwater Waste Water and Al Wathba Veolia Besix Waste Water – were established, each responsible for two plants. Combined, these four facilities, three of which were operational as of mid-2012, will increase the daily wastewater treatment capacity by more than 800,000 cu metres.



By 2020 the government aims to generate 7% of the emirate's energy from renewable sources

The emirate is also investing in expanding its system of sewer tunnels used to carry wastewater to treatment plants. The Strategic Tunnel Enhancement Programme (STEP) involves the construction of a 41-km-long tunnel to carry wastewater from Abu Dhabi City to two ISTPs located in Al Wathba. When completed, the $1.6bn network will be able to carry 800,000 cu metres of wastewater a day, with its capacity to be increased to 1.7m cu metres per day by 2030. STEP has been under development since 2008, and as of April 2012, more than one-third of the development work had been completed, with nearly 15 km of excavations finished. The project was on schedule to be completed by early 2015. Based on the Singapore model of a main artery collecting the bulk of wastewater under gravity conditions and a final pump up to the surface at the receiving end, the programme's expected lifespan is at least 100 years, and the project will replace many pumping stations, saving power and reducing carbon output.

**OUTLOOK:** Over the past decade, the Abu Dhabi utilities sector has undergone a profound shift, from an entirely government-run operation to an unbundled model with a role for the private sector. With demand for utilities expected to continue growing, more investment opportunities should arise, whether in power and desalination plants, electricity and water transmission systems, solar and wind projects, nuclear energy or the provision of sewerage services. Utilities investments do not usually make headlines, but they typically generate steady returns, which are attractive for investors, especially during uncertain global economic times.

In 2008 the government published a policy for the evaluation and potential development of peaceful nuclear power. Overseen by the ENEC, four nuclear energy plants are to come on line between 2017 and 2020.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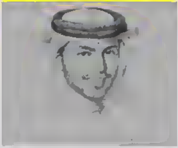


Abdulla Saif Al Nuaimi, Director-General, ADWEA

# Promoting expansion

## OBG talks to Abdulla Saif Al Nuaimi, Director-General, Abu Dhabi Water and Electricity Authority (ADWEA)

**How are extended deadlines for residential and industrial projects helping relieve utilities demand?**

**AL NUAIMI:** Over the past few years, peak electricity demand has grown around 12% annually. Our master plan is updated regularly to reflect new and existing projects. As part of our five-year plan, ADWEA will support industrial projects like the capacity expansion of some Abu Dhabi National Oil Company subsidiaries and Emirates Steel. Such developments will continue to drive demand in addition to organic domestic growth.

At the same time, we face challenges in time constraints and varying levels of utilisation. For example, some real estate projects may take as little as one year to execute, however, bringing a power plant on-line requires a minimum of three years. As such, end-users are encouraged to submit proposals well in advance when requiring additional power. Our philosophy is to work in close collaboration with customers in order to fulfil their growing power requirements. With respect to utilisation, some developers have expanded, but such moves have not always translated into the anticipated utilisation rate of our assets, which affects such assets from a technical or commercial basis. The government is measured in its approach to expansion, including in terms of issuing licences to developers and implementing transparent regulations in this regard.

**To what extent will the GCC-wide power grid improve efficiency in regional generation capacity?**

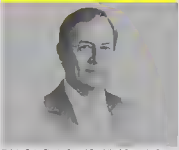
**AL NUAIMI:** The GCC interconnection grid, which connects the electricity grids of the six Gulf states, makes Abu Dhabi more secure in the case of a blackout or power shortage. The grid does not offer continuous generation of power supply but it can be used to stem any blackout issues experienced by the members. In 2011, before the Al Dur Independent Water and Power Project came on-line in Bahrain, the UAE supported Bahrain during a power shortage. This was the first time we supplied power through the GCC grid. Although the interconnection grid will give Abu Dhabi greater security, we cannot rely solely on the supply of others. As a national security measure, it is important for the country to have sufficient power supply to meet rising demand. The interconnection within the UAE is quite strong already and ADWEA is investing more to upgrade the electricity and water network, including within the Northern Emirates. We are working with the relevant stakeholders to bring key projects on-line.

**In what ways has the global economic crisis affected Abu Dhabi's ability to finance investments in the water and power sectors?**

**AL NUAIMI:** The emirate's new capacity is built through the Independent Water & Power Producers (IWPP) privatisation programme. ADWEA does not provide a guarantee to the financiers, but we do guarantee a power and water purchase agreement. The first IWPP tendered raised significant interest from international investors. In the past few years, the emirate has been able to close out its IWPP projects on time, and this stable track record has made it easier for IWPPs to source financing for future local projects. Currently, there are many investors interested in the Abu Dhabi market; ADWEA receives regular enquiries from outside investors wanting to know when the next IWPP will be tendered and how they can be involved. Clearly, there is an appetite for additional projects from investors, and I don't see ADWEA having trouble sourcing further investment.

**What is being done to educate the public on the importance of water and electricity conservation, as a way to improve demand-side management?**

**AL NUAIMI:** The government subsidises electricity prices for consumers such as citizens and expatriates. We are currently working to educate consumers on the importance of energy conservation methods and encourage positive behaviours. Additionally, we are now developing, along with other stakeholders, both short- and long-term solutions to address these matters and enhance demand-side management policy.



Nicholas Carter, Director-General, Regulation & Supervision Bureau

# Enhancing efficiency

## OBG talks to Nicholas Carter, Director-General, Regulation and Supervision Bureau

**What changes do you expect to see in water and electricity production and management in order to meet demand in the future?**

**CARTER:** A diversified portfolio is crucial to any power sector, and by 2020 there will be a broader feedstock mix for electricity generation. First, there will be a diversification of gas sources. Currently, most gas used for generation is from Dolphin Energy, but in the future we will also have more gas coming from GASCO through the Shah gas field development project, as well as from imports. Renewable energies and nuclear power will also play an increasingly important role, and could satisfy 20-25% of peak demand needs.

There could also be increased demand for industrial load. Developing industrial and commercial loads – which have a 90-95% load factor – in addition to nuclear power, creates good synergy. Residential demand will decrease as a percentage of overall demand.

We are working towards a significant curtailment of water misuse as well, by promoting the idea of recycling all wastewater, which is nearly the situation now. There is also a drive to increase the amount of water returning to the sewers, with a current goal for 60% of the water produced in the emirate to be returned back to the sewers. Most drinking water not going to the sewer will be used for irrigation. In the future, beautification will only be expanded where there is sufficient recycled water available. Finally, as the emirate builds more apartment units, there will be a much greater percentage of water returning to the sewers – nearly 90-95% as opposed to only 20-25% in the villas.

**What measures are being taken to enhance the efficiency of the utilities sector?**

**CARTER:** The water and electricity law is structured to promote competition and remove inefficiency. Foreign entities are crucial in achieving major efficiency gains, and there is still progress to be made in the sector. We promote efficiency through the setting of price controls. Local operators can choose how they spend their revenues, and if these companies spend inefficiently by increasing operational expenses, they reduce their profits. This pressures the company to lower operating costs. How they deal with cost management, provided they do not reduce services to customers, is a matter for each company's management.

**To what extent do you feel behaviour modification can help manage consumer demand?**

**CARTER:** This is a difficult issue to identify. What we do know is that there is a better chance of changing consumer behaviour if customers are informed about the consequences of their actions. The introduction of our new billing system is part of a larger programme designed to inform consumers about the value of utilities compared with the prices they are being charged.

**What is being done to strengthen the electricity grid both within Abu Dhabi and with its neighbours?**

**CARTER:** We anticipate there will be more integration with the rest of the emirates in the coming years, as opposed to a greater expansion in GCC-wide connectivity. At the moment, the country has a series of transmission clusters, and these will be strengthened in the future in order to gain efficiencies in terms of spinning reserves, system integrity and security. It is much better to have a national grid with a 40-50 GW capacity rather than a series of isolated systems. A more robust network is necessary, especially as nuclear power becomes part of the country's blend of energy sources.

**How will this grid impact the ability for nuclear power to be introduced as part of the energy mix?**

**CARTER:** The transmission network for the nuclear facilities will use much higher voltages to move power away from the Baraka site, as there are no significant loads in that area and the generated electricity will need to be moved to the load centres. As a result, there will be some changes to the transmission network as a consequence of future nuclear development.

Concentrated solar plants can drive conventional steam turbines

# Future fuel

## Efforts continue to expand renewable energy offerings

While the vast majority of Abu Dhabi's electricity today is generated by gas fired power plants, the government remains committed to the development of renewable energy sources. The emirate has also taken steps to establish nuclear energy plants, with the first of four facilities expected to come on-line in 2017. Both renewable and nuclear energy could help Abu Dhabi meet future electricity demands without having to source new or additional supplies of natural gas.

**GREEN GOALS.** The emirate plans to generate 7% of its power generation capacity from renewable sources by 2020. Describing itself as "a commercially driven enterprise that operates across the full spectrum of the renewable energy and sustainable technology industry", Masdar spearheads Abu Dhabi's drive to become a model of sustainability regionally and worldwide. This government-owned entity has three integrated business units and an independent, research-driven graduate university – the Masdar Institute of Science and Technology (MI). The three business units consist of Masdar Capital, which invests in clean energy and sustainable technology companies; Masdar Clean Energy, which develops and invests in large-scale renewable power projects such as solar and wind farms; and Masdar City, a cleantech cluster and special economic zone that is under construction as a sustainable urban development.

The government's commitment to renewable energy was affirmed in a January 2012 announcement by the Executive Council, the emirate's primary decision-making body. As part of a list of development projects across sectors like health, education and housing, the council noted the government's investments in renewable energy projects, including the 100-MW Shams solar power plant and the Sir Bani Yas wind farm. "Both of these projects will help support the government's vision of having 7% of its energy needs supplied by renewable energy," the council said in a statement.

**SOLAR:** The project at Shams is being developed under a 25-year contract by the Shams Power Company, a special purpose vehicle owned by Masdar (60%), Abengoa Solar (20%) and France's Total (20%). Construction of Shams 1, as the facility is known, began in 2010 and should be completed by the end of 2012, at a total cost of $700m. One of the world's largest concentrated solar power (CSP) plants, Shams 1 will feature a solar field of 768 parabolic trough collectors covering 2.5 sq km. Unlike photovoltaic (PV) technology, CSP works by focusing sunlight that is concentrated by mirrors, which heats a coolant to generate steam that in turn drives a conventional turbine.

Masdar has also invested in PV solar projects, including a 10-MW plant located at Masdar City, a special economic zone and technology cluster located about 17 km from downtown Abu Dhabi City that aims to integrate and showcase clean technologies. Constructed in 2009, the plant provides power for MI, as well as for the ongoing construction activities at the development site. During certain times of the day, the facility produces more energy than is consumed at Masdar City, with the excess then sold to the national grid.

The 10-MW plant has provided an opportunity for local experts to better understand how PV technologies respond to the region's climate, knowledge that will be useful when it comes time to develop Noor 1, a 100-MW PV plant that Masdar also has in the works.

**COLLECTIVE EFFORT:** Abu Dhabi has also had some success in encouraging individuals, businesses and government organisations to install rooftop PV panels, with an option to sell excess production to the national grid. In September 2011, for example, Masdar and Abu Dhabi Water and Electricity Authority jointly announced that they had placed PV rooftop panels on 11 government and private buildings. The size of each installation varied from 15 KW at an individual villa to 1 MW at the Masdar Institute of Science and Technology, with the total capacity amounting to 2.3 MW.

However, when it comes to rooftop installations, the biggest challenge may be convincing enough homeowners and businesses to install these panels. Without a combined capacity of at least 400-500 MW,

The emirate plans to have 7% of its electricity generating capacity sourced from renewables by 2020, and solar power features prominently in the mix.

rooftop solar panels are unlikely to have much of an impact on the emirate's plans for building new power plants. Assuming that the capacity of an individual home rooftop unit is 15 KW, more than 25,000 would be required to meet this minimum. In response to some of the unknowns related to PV solar generation the Regulation and Supervision Bureau (RSB) has established a fast-track licensing procedure at a minimum cost to help potential producers and to date it has issued a number of "self-regulating" licences in the emirate.

**WIND:** Besides solar, Masdar has also invested in generating power through the use of wind turbines. In 2008 Masdar signed an agreement with the Tourism Development & Investment Company (TDIC), a government-owned entity that was established in 2006 to carry out projects in the tourism sector, to develop an onshore windfarm on Sir Bani Yas Island. Located about 250 km south-west of Abu Dhabi City, Sir Bani Yas is the largest natural island in the UAE and promoted by TDIC as a tourist destination. The conceptual design and technical evaluations for the project, which has a targeted capacity of 28.8 MW, were completed in 2010. Meanwhile, the island is already home to the Middle East's largest single wind turbine – 65 metres tall and with a production capacity of 850 KW per hour.

**MASDAR CITY:** While some of these individual projects may have made headlines, Masdar is perhaps best known as the developer of Masdar City. This futuristic development, expected to be completed by 2025, will eventually be home to 40,000 residents and hundreds of businesses. As of mid-2012, the city was already the location of the MI campus, which includes six buildings comprising residential facilities and laboratories. Masdar City's first commercial facility, the Incubator Building, should be completed by the end of 2012 and will subsequently be joined by the Siemens Middle East headquarters. However, the development of Masdar has experienced some delays. In 2010 company officials announced they were adjusting the project's timeline in response to the global economic crisis and market conditions for residential and commercial property. Additionally, a newly designed Masdar and International Renewable Energy Agency (IRENA) headquarters complex is currently under construction.

**NUCLEAR:** Another source of energy – nuclear – has also emerged as an important alternative to hydrocarbons for the UAE as a whole. In 2008 the country's government conducted a study into its energy needs and electricity generation capacity. It concluded that nuclear energy was the best choice for the UAE, given that it is safe, clean, commercially viable and delivers significant volumes of base-load electricity. In 2009 Sheikh Khalifa bin Zayed Al Nahyan, as president of the UAE, established the Emirates Nuclear Energy Corporation (ENEC), the organisation charged with implementing the UAE nuclear energy programme. ENEC is responsible for the deployment, ownership and operation of nuclear energy plants within the UAE, working closely with the Abu Dhabi and federal governments to ensure that the peaceful nuclear energy programme is aligned with the industrial infrastructure plans of the UAE.

ENEC also oversees the work of Korean Electric Power Corporation, the contractor that was chosen in 2009 to design, construct and operate four nuclear energy plants to be located in Al Gharbia, each of which is expected to have a capacity of about 1400 MW. The first is due to come on-line in 2017, with an additional one each year through 2020. Following the approval of the Federal Authority for Nuclear Regulation and the Environmental Agency - Abu Dhabi, ENEC began construction of Unit 1 at Baraka in July 2012 and is on track to deliver electricity by May 2017.

Nuclear energy will provide safe, reliable, clean and efficient electricity to power the growth of the nation according to Mohammed Al Hammadi, the CEO of ENEC. In addition to reducing carbon emissions by 12m tonnes a year. The additional 5200-MW boost in net capacity will help Abu Dhabi to meet its growing demand for electricity, which the Abu Dhabi Water and Electricity Company (ADWEC) has projected will hit 16,244 MW by 2015 and 19,029 MW in 2017.

**POWERING ON, SAFELY:** The commissioning of the nuclear programme in 2017-20 provides the Abu Dhabi Transmission Company with both challenges and opportunities. Aside from the obvious challenge of ensuring that the transmission infrastructure is in place to transfer power from the plant to demand centres, there is a need to ensure the security of the system, particularly in the post-Fukushima operating environment. Another challenge is balancing the output from the nuclear plant with that of existing co-generation production used for water desalination, to ensure there is efficient supply of water and power to match the needs of the emirates. The opportunity that this development brings is to diversify the portfolio of generation to include an alternative fuel, while enhancing the network in the emirates to benefit existing and prospective users of the GCC electricity grid.

In addition, nuclear power generation will also have an impact on the choice of technology for water production. Reverse osmosis is likely to become more attractive than thermal processes due to its reliance on electricity, and ADWEC continues to review future generation selection on a cost basis, as per its economic purchase obligation. Reverse osmosis technology may help raise the electric load duration during the winter months when the demand for air-conditioning is at a minimum. This will improve the existing generation fleet's power-to-water ratio while simultaneously maintaining the efficiency of the overall system at relatively higher levels year round.

The government's commitment to alternative sources of energy is impressive and encouraging, especially given that Abu Dhabi is home to 8% of global crude oil reserves and has enough hydrocarbons reserves to last at least a century. Nonetheless, it has committed billions of dollars to establishing the emirate as a centre for renewable energy and is working to bring on-line four nuclear reactors safely. This signals that Abu Dhabi is committed to finding alternative sources of energy for its growing economy, as well as helping to ensure that the environment remains unharmed in the process.

Nuclear generation capacity is slated to provide 5600 MW by 2020, helping to meet rapidly rising demand for power, which is expected to reach 19,029 MW by 2017

Water Lilies

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شركة أبوظبي لخدمات الصرف الصحي
Abu Dhabi Sewerage Services Company

New sewage piping capacity must be installed to meet demand

# Waste not, want not

## The sewage system is getting some necessary upgrades

The collection, treatment and disposal of wastewater are important functions of developed economies. These responsibilities are handled by Abu Dhabi Sewerage Services Company (ADSSC), a government entity, but the private sector has taken a greater role of late, building and operating four new wastewater treatment plants. The government remains the primary player, with ADSSC overseeing the expansion of sewer tunnels.

**SYSTEM STRUCTURE:** ADSSC is the institution primarily responsible for sewerage systems in the emirate, with a mandate to collect and treat wastewater and safely dispose of the waste produced. It is entirely owned by the government and reports directly to the Executive Council, the emirate's primary decision-making body. The organisation owns and operates more than 20 wastewater treatment plants in Abu Dhabi, with over 60% of the treated water generated by these facilities given to the emirate's municipalities for irrigation.

The demand for sewerage services has accordingly expanded in recent years. To address the need for facilities, the government turned to the private sector in 2008, granting two 25-year concessions to build own and operate independent sewerage treatment plants (ISTPs). The ISTP model is similar the one used for independent water and power projects (IWPPs) in Abu Dhabi, with 60% of the ISTP owned indirectly by the government and the balance held by private sector investors. However, unlike the emirate's IWPPs, the ISTPs have been established on a build-own-operate and transfer basis, rather than the build-own-operate system that has been used in production.

Two entities – Al Etihad Biwater Waste Water and Al Wathba Veolia Besix Waste Water – were established using this new model. Each firm was awarded a concession to build two plants, for a total of four ISTPs, of which three had opened as of mid-2012. Al Etihad Biwater announced in January 2012 that it had inaugurated the operation of the Al Saad wastewater treatment plant, which has been designed to treat a maximum capacity of 80,000 cu metres of wastewater per day. Al Saad will be joined by Al Etihad Biwater's plant at Al Wathba, which is in its final commissioning stage and will handle a daily maximum of 300,000 cu metres. Meanwhile, Al Wathba Veolia Besix launched two plants – Al Wathba 2 (maximum capacity of 300,000 cu metres per day) and Allahamah (130,000 cu metres) – in 2011.

**STEP-BY-STEP:** Abu Dhabi is also investing heavily in expanding sewer tunnels to treatment plants. At the centre of these plans is the Strategic Tunnel Enhancement Programme (STEP), which involves the construction of a 41-km tunnel that will start on Abu Dhabi Island and pass beneath the Maqta Creek to the mainland, descending from an initial depth of 24 metres to 80 metres. Along with a system of 43 km of smaller feeder tunnels that will carry wastewater to the main shaft, there will also be a large pumping station located next to the Al Wathba ISTPs. When completed, the $1.6bn network will be able to carry 800,000 cu metres of wastewater per day, with its capacity to be increased to 1.7m cu metres per day by 2030. Progress has been rapid so far, with Alan Thomson, the managing director of ADSSC, announcing in May 2012 that more than one-third of the development work on the tunnelling had been completed and the project was on schedule to be completed by early 2015. "The new STEP system will address current strains on the system and cater to future forecast growth," Thomson told OBG. "Additionally, new treatment plants and pumping stations will help support the ongoing investment programme for the emirate's wastewater network."

**REUSE:** At present, ADSSC treats all water to a standard suitable for reuse in unrestricted landscaping applications. Only 60% of this is actually reused due to the inadequate capacity of downstream distribution infrastructure. To meet the institution's objective of 100% re-use, ADSSC has embarked on a Dh2bn ($544.4m) investment in infrastructure expansion. Projections of recycled water demand show that it exceeds supply and that when the new developments are fully established ADSSC will have full reuse of treated water

The ADSSC has achieved a 60% reuse rate for its treated water capacity and plans downstream distribution upgrades to reach 100%.


Electricity is $0.014 per KWh for Emiratis, and $0.04 for non-Emiratis

# Making it count

## Energy conservation is an increasingly high priority

With peak demand for electricity expected to more than double between 2011 and 2020, Abu Dhabi is taking steps to encourage a reduction in consumption. This would not only lessen the government's burden when it comes to subsidising electricity prices, it could also obviate, or at least reduce, the need to invest in new power generation capacity. To meet its goal of reducing energy demand, the emirate has implemented a number of different conservation efforts, including educating consumers about energy consumption and introducing building codes to make structures more energy efficient. At the centre of any discussion about the consumption of electricity is pricing. At present, residential customers who are Emiratis pay Dh0.05 ($0.014) per KWh, while the price for non-nationals is Dh0.15 ($0.04) per KWh. Similarly, industrial, commercial and government users are also charged Dh0.15 ($0.04) per kWh. These rates are flat and do not change according to the time of day the electricity is consumed.

**EDUCATION:** While price is usually one of the most important factors in driving demand, Abu Dhabi is in the midst of trying to modify consumer behaviour without changing its tariff structure. In March 2012 the Regulation and Supervision Bureau (RSB), the independent regulatory authority overseeing the sector and the distribution company, rolled out a newly designed utility bill for water and electricity. In addition to providing information regarding usage, the new bill will also indicate the amount of government subsidy that has been paid for the amount of water and electricity consumed. For example, for electricity, it might show a nominal bill of Dh2000 ($544), a subsidy of Dh1400 ($381), and a final charge of Dh600 ($163).

Residential customers will also be able to see "ideal" and "above-ideal" consumption ranges for different property types. For example, the ideal amount of electricity usage for a flat is up to 20 units per day, while the daily figure for water is 700 litres. For villas, the amounts are higher, at 200 units and 5000 litres per day. The new bills reflect this ideal and above-ideal information as green and red blocks, respectively. According to Nicholas Carter, the director-general of RSB, about 80% of the bills in April 2012 fell within the ideal range (green block), but he cautioned that this figure would change in summer months as air conditioning usage rises. However, there is an expectation that residential customers will modify their behaviour when presented with additional information, regardless of the fact that prices have not changed, Carter added.

The RSB provides information to consumers about consumption habits and defines "ideal" electricity usage for a flat as 20 units per day and water consumption as 700 litres a day.

**PEAK DEMAND:** New bills are not the only way in which to inform people of how much electricity or water they are using; another programme from RSB, this time through its Powerwise office, will also help customers better understand their power consumption, particularly with respect to the time of day, with a goal of reducing usage during peak hours, which usually occur in the late afternoon. The challenge for Abu Dhabi – as for any entity working to ensure that electricity is available – is that power generation capacity must be sufficient to handle the peak demand, even if non-peak demand is much lower. With peak demand steadily rising in recent years, this has required investing in more and larger facilities that are unused at certain times, ultimately raising the cost of delivering power to customers.

As of mid 2012 the new Powerwise programme was still in its early stages, with RSB in the process of recruiting 400 volunteers to participate in a 16-month trial. Specifically, this testing period will be used to assess whether or not people will adjust their usage when informed about changing electricity prices over the course of the day. As the trial has been designed, nationals will be charged Dh0.10 ($0.03) per KWh for peak usage (2-8pm), while non-nationals will be charged Dh0.30 ($0.08) per KWh during this same period. At off-peak times, these prices will fall to Dh0.03 ($0.01) and Dh0.10

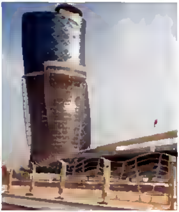
($0.03), respectively. A monitor will be installed in the houses of all participants, which will make it easier for users to see and optimise their energy use.

The goal is to encourage people to put off certain electricity-intensive activities – like running the washing and dishwasher machines – until off-peak times. Another time-specific option is to set air conditioning units a few degrees warmer during the afternoon. More generally, RSB has also recommend a number of other ways to reduce electricity usage, including using the economy setting on appliances such as dishwashers and turning off computers and televisions when not in use. The regulator has also suggested cleaning air conditioning filters monthly to help the unit run more efficiently.

**STAYING COOL:** Keeping air conditioners running efficiently could provide significant savings, given that cooling accounts for over 50% of electricity consumption in peak summer months. RSB is not alone in its efforts to reduce energy demand from air conditioners, with the Abu Dhabi Water and Electricity Authority (ADWEA) also supporting this goal.

In 2010 a pilot programme was completed which showed that energy consumption by air conditioners could be reduced by up to 27% with a proactive maintenance routine. ADWEA is also involved with a multi-agency project team that was set up in June 2011 and has identified potential energy saving strategies, including better maintenance of air conditioning systems. While ADWEA would not have direct responsibility for air conditioning maintenance, it is nonetheless playing a role in evaluating this as an option among several strategies. Some challenges remain when it comes to air conditioning, however. Many residential units are inhabited by renters, not owners, with the former less likely to perform maintenance on air conditioners. Moreover, as is the issue with all the efforts to modify consumer behaviour, without changing electricity prices, it is difficult to encourage people to service their air conditioners on a regular basis. The situation in commercial buildings is different, where the volume of usage means that facility managers and owners have an incentive to keep air conditioners well maintained, even if the price per KWh is low.

**BUILDINGS:** While well-maintained air conditioners could help reduce demand for electricity, an alternative would be to improve the efficiency of buildings so that less energy would be required to keep them at comfortable temperatures. The government of Abu Dhabi has been focusing on the issue of environmentally friendly and energy-efficient construction with the Urban Planning Council having launched the Estidama (Arabic for "sustainability") programme in 2010. This sustainability initiative grew out of the Urban Planning Council's Plan Abu Dhabi 2030 and presents a series of guidelines for sustainable development. "Government initiatives such as Estidama will help increase efficiency and slow the growth of electricity demand in the long run," Syed Basar Shueb, the CEO of PAL Group told OBG. "This conservation of energy will help the utilities sector meet the local requirements."



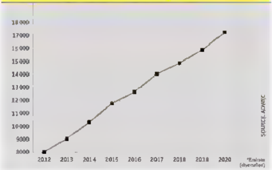
Improving building-wide energy efficiency may reduce consumption.

One component of Estidama is the Pearl Ratings System, which deals with the built environment and ranks developments according to various environmental, economic, social and cultural indicators, with particular emphasis placed on optimal energy and water consumption. There are five levels, with one pearl the lowest and five pearls the highest rating. Since June 2010, all master-planned communities have been required to achieve a minimum rating of one pearl, and any project being built for the government must meet the two-pearl standard.

The implementation of Estidama has resulted in somewhat higher construction costs, although, it is also expected reduce energy bills for those who live and work in newer buildings. At present, tenants may not be aware enough of the programme to seek out higher-rated dwellings or commercial spaces, but if Abu Dhabi were to raise electricity prices to more accurately reflect the cost of production, this could be a more meaningful factor in the future.

Running air conditioning units efficiently could significantly save on electricity usage, as cooling accounts for some 50% of consumption in the summer months

Peak electricity demand forecast, 2012-20 (gross MW)*



# Industry

Diversification away from hydrocarbons tops agenda
The petrochemicals segment continues to see interest
New developments include a number of large malls
High-end shopping malls see their share increasing

New spacial industrial clusters should help link upstream interests

# New frontiers

## Sector development has focused on non-oil segments with the creation of industrial zones

Diversification away from reliance on hydrocarbons continues to be a government priority, as shown by the stated aims of Economic Vision 2030

The government is investing in a series of large industrial developments as it endeavours to diversify the economy beyond hydrocarbons, a key aim of its Economic Vision 2030, a master development strategy that is to reshape the emirate's economy over the next two decades. In the coming five years, growth in the sector is likely to be driven primarily by expanded upstream activity in the steel, aluminium and petrochemicals segments. But in addition to this, the emirate ultimately hopes to retain as much of the value chain as possible, and is therefore looking to develop midstream and downstream operations as well. Manufacturers working in sectors such as metals, chemicals, food processing, printing and pharmaceuticals are among those that look set to benefit.

**DEVELOPING NON-OIL SECTORS:** If all goes according to plan, this more sophisticated and sustainable offering will play a central role in boosting the non-oil sector's share of GDP from a little over 50% in 2010 to 64% by 2030, according to the Statistics Centre – Abu Dhabi (SCAD). Manufacturing accounted for 5.5% of GDP in 2011, but the government wants to raise this number to 25% by 2030.

This is an ambitious target and there could well be bumps on the road ahead. For instance, much of the emirate's industrial activity still depends on the health of the oil and gas sector, and export-oriented operations could be vulnerable to further global economic shocks. Manufacturing industries shrank by 22% in 2009 during the global financial crisis, although they rebounded, growing 10.8% in 2010, according to SCAD.

Yet Abu Dhabi's non-oil sector as a whole has displayed resilience in recent years. It grew by 1.3% in 2009, reaching up to 5.3% in 2011. Non-oil exports, too, have been making a marginally greater contribution to total GDP, growing from 0.8% in 2008 to 1.4% in 2011. Non-oil exports dropped by 74% in third-quarter 2011, but then rose by 58% in December 2011, and by more than 100% in January and March 2012, driven by increases in chemicals and manufactured goods. Prospects for 2012 look relatively encouraging, with the IMF projecting continued growth for the non-oil economy in the UAE as a whole.

The manufacturing sector accounted for only 5.5% of GDP in 2010, but the government is hoping to raise this to 25% by the end of 2030.

**PUBLIC-PRIVATE PARTNERSHIPS (PPPS):** Growth is being driven by state-owned enterprises, often in partnership with foreign investors. Foremost among these is the General Holding Corporation (SENAAT), which has investments in metals, construction materials, and food and beverage. In 2009-11 SENAAT has seen assets grow by 30% and net profits by 32%. Examples of SENAAT's growth in 2011 and 2012 include the commissioning of a new high-voltage plant by Ducab, a manufacturer of cables in which it has a 50% stake, the addition of new capacity to Emirates Steel, fully owned by SENAAT, and the acquisition of a Turkish spring water plant by Agthia, the food and beverage group in which SENAAT has a 51% stake.

**CLUSTERING:** Abu Dhabi is placing a strong emphasis on the creation of industrial clusters, which will link upstream with mid- and downstream activities. A typical cluster would focus on a primary industry – a steel factory, for example – with further processing and manufacturing facilities located nearby.

It goes without saying that the emergence of such clusters is in keeping with the goals of the Economic Vision 2030, as a greater share of the value chain is to be kept within Abu Dhabi. The midstream and downstream segments are currently less developed than their upstream anchors, but this could begin to change somewhat in the coming decade.

While Abu Dhabi is currently home to a range of industries, few have yet materialised into integrated

**Basic metals & manufacturing, 2007-10**

| | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| No. of establishments | 25 | 25 | 36 | 34 |
| Contribution to GDP (%) | 0.3 | 0.6 | 0.17 | 0.17 |
| Capital formation (% of GDP) | 0.7 | 0.4 | 2.15 | 2.07 |

SOURCE: Statistics Centre – Abu Dhabi

clusters. Nor does the government expect that all industrial activity will be easily slotted into a vertically integrated cluster. Investors with long-standing operations in the older industrial zone at Musaffah may be unlikely to move, but in many cases such a system will probably be vastly more efficient – and thus a significant draw for new foreign investment.

**ALUMINIUM:** An aluminium cluster has already begun to take shape. Emirates Aluminium (EMAL), a $5.7bn joint venture between state-owned Mubadala Development Company and the Dubai Aluminium Company (DUBAL), was formed in 2007 as the anchor tenant for the aluminium cluster in Kizad. EMAL is now to be joined by the Taweelah Aluminium Extrusion Company (TALEX), which is setting up shop nearby to make extrusion products primarily for the automobile market. A $200m joint venture between SENAAT and Gulf Extrusion of Al Ghurair Group, TALEX was established in December 2011 and is looking to begin its commercial operations at some point in 2013.

One of the most striking features of this linkage will be the "hot metal road" which will allow TALEX to receive EMAL's aluminium in molten form. This efficient transport system means saving time and money on re-melting the aluminium at the midstream and downstream stages, saving the involved parties not only vast quantities of energy (and thus money) but also reducing the environmental impact of the process.

The year 2012 has seen the announcement of a further addition to the aluminium cluster. In May Dubai-based Al Braik Investments was confirmed as the fifth of Kizad's tenants, with the company agreeing to invest around $173m in a silicon smelter.

Silicon is being increasingly used as an alloying agent for aluminium production, so the company will hope to cash in on the GCC region's currently buoyant aluminium sector. More immediately, it will be able to work closely with EMAL, the anchor tenant in the aluminium cluster at Kizad.

The cluster has yet to secure itself downstream tenants that complement these upstream and midstream activities, but talks were under way in mid-2012 between the government and manufacturers of automotive parts, for which there is currently a strong demand in the region. Aluminium is, in this way, one of the fastest emerging pillars of growth that has been outlined in the Economic Vision 2030. And as the world's aluminium producers are facing a supply glut which saw prices reach two-year lows in July 2012, they could well find Abu Dhabi's competitive energy prices – which account for around a third of input costs for aluminium – to be a very attractive way of lowering their production expenses.

Aluminium prices are indeed low, but some in the industry believe strong demand is still there; according to Alcoa, an aluminium giant currently engaged in a $10.8bn joint venture in Saudi Arabia, demand should grow worldwide by 6% in 2012, driven by recovering growth in the aerospace industry. Still, competition between Gulf countries is likely to remain intense, given that production capacity in the region is due to

Expansion in non-hydrocarbon segments is continuing apace

increase by nearly 40%, from 3.6m tonnes in 2011 to 5m tonnes in 2015, according to data provided by the Gulf Aluminium Council.

A large chunk of that projected regional increase is to be contributed by EMAL. The first phase of the plant has been running at its full capacity of 750,000 tonnes per year since the beginning of 2011, and in 2012 it was given the GCC "Industrial Project of the Year" award at the Middle East Economic Digest Quality Awards. EMAL has since released a statement saying that it is now undergoing $4.5bn in expansion works, which should nearly double that capacity to 1.3m tonnes upon completion in 2014.

EMAL's existing facility is sending its exports far and wide, with major purchasers in the likes of the US and Europe. Asian economies are now soaking up a sizeable share as well: of EMAL and DUBAL's total combined production of 1.87m tonnes per year, 50% was shipped in 2011 to customers in greater Asia, excluding China, compared to the 16% shipped to the US. It is likely that Asian markets will occupy a greater share still when EMAL's new production capacity finally comes fully on-line in two years.

**STEEL:** Unlike aluminium, Abu Dhabi's steel industry targets more of a regional than a global market. Emirates Steel (ES), which was established in 2001 as a subsidiary of SENAAT, is currently in the midst of multi-scale expansion work which is hoped to make the plant a rival to Saudi Arabia's Hadeed, currently the region's largest steel producer. The UAE is home to

Aluminium is seen as a segment ripe for expansion, with a number of new companies setting up shop in the emirate and a unique "hot metal road" being built as an efficient aluminium transit system

### Upcoming industrial zones

| | Area (sq km) | Activity |
|---|---|---|
| ICAD 4 | 24 | Technology, light industry, logistics |
| ICAD 5 | 11 | Automobiles |
| KIZAD | 420 | Mixed |
| Ruwais Industrial Zone | 14 | Mixed |
| Madinat Zayed Industrial Zone | 2.5 | Mixed |

SOURCE: ZonesCorp

Industrial investments are largely being funnelled into special zones

Petrochemicals is a segment seeing massive expansion over the current term, though uncertainties in the global economic climate could temper its growth in the long run.

31% of the operating mills in the GCC region, second only to the 49% in Saudi Arabia.

The $816m first phase of the expansion was completed in 2009, making ES a fully integrated steel manufacturer. Early 2012 saw the completion of the second phase, valued at $1.5bn, in which the company ramped up its production capacity from 2m to 3m tonnes per year, and also added a heavy- and jumbo-sections rolling mill – the first such mill in the Middle East and North Africa region, according to SENAAT. This mill should be able to cater for sections required in the energy sector and large infrastructure projects, for which there is a strong demand in the region.

Work on the third phase, which is valued at around $817m, is due to be awarded by the end of 2012 and is set to be completed by the end of 2014. This will add a further 2m tonnes of capacity each year and will establish a facility for the production of flat steel products, as opposed to steel rebar, according to *Construction Week*. A final phase, still in the planning stage, would see production eventually rise to between 6m and 6.5m tonnes per year, *The National* reported.

Saudi Arabia and the local market in the UAE account for most of the demand for Abu Dhabi's steel. That being the case, the time seems ripe for expansion: a 2011 report by *Steel Business Briefing* found that the GCC region's demand of 20m tonnes of steel per year far outstripped its current supply capacity of 12m tonnes per year, according to *Gulf News*. As for downstream activity, it is hoped that steel products manufactured locally with low-cost inputs will be able to compete with the importers currently active in the region, including China and South Korea. "The steel industry would benefit from investments in developing downstream industries and other value-added steel products," Saeed Al Romaithi, the CEO of ES, told OBG. "The emirate has all the right ingredients to attract investments in downstream manufacturing using products from ES as feedstock."

**PETROCHEMICALS:** The emirate's petrochemicals sector is surging at present, with billions of dollars of investment pouring into two plastics complexes based in the western city of Ruwais, as well as a large-scale expansion of the country's main fertiliser producer. With the three projects due to come on-line between 2013 and 2015, the emirate can soon expect a significant contribution to its non-oil GDP.

Continuing uncertainty in the world's economy could impact negatively on the global petrochemicals market, while rapid expansion in the GCC's petrochemicals output capacity over the next five years could lead to low utilisation rates and lower profit margins for less competitive companies. However, demand picked up in 2011 and is forecast to increase further in 2012. With relatively cheap feedstock, Middle Eastern exporters such as Abu Dhabi can look forward to increasing their share of the global market.

**INDUSTRIAL ZONES:** New industrial investments are being funnelled as far as possible into zones, most of which are tailored for specific industries. The most significant of these is Kizad, which hopes to be the

region's largest industrial zone upon completion in 2030. In the process, Kizad officials have said the project will create 150,000 jobs.

If all goes to plan, the economic activity in Kizad alone will contribute up to 15% of the emirate's non-oil GDP by 2030, and will be spread over eight main clusters, in areas such as engineered metals, mixed use petrochemicals, pharmaceuticals and food processing, and trade and logistics. Still under construction, the zone was reported to be 78% complete at the end of 2011; at that stage it had already drawn commitments from 30 industrial projects with a total value of $5bn.

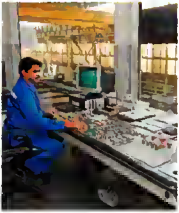
Connected directly with the Khalifa Port, Kizad will be most attractive to export-oriented industries in need of deepwater loading facilities. Between 60% and 80% of its output is expected to leave via this port for export around the world, and the first containers are set to be shipped in late 2012. In addition to attracting foreign investors, the port makes economic sense for a country whose imports still far surpass its exports.

The road, rail and air connections at Kizad are also likely to go down well with industrialists who have been calling for increased infrastructure support. "The government is focusing heavily on the emirate's industrialisation; significant investments are being made to enhance the industrial and logistic infrastructure to support this future growth," Al Romaithi told OBG. Etihad Railway – a rail project that will connect Abu Dhabi with the other emirates and ultimately to other countries in the Gulf – has been integrated with Kizad so as to bring the rail line right up to the port.

Although Kizad is currently receiving the most attention, other zones currently play host to the majority of the emirate's industrial activity. Since 2004 a government body called the Higher Corporation for Specialised Economic Zones, better known as ZonesCorp, has developed the three phases of the Industrial City of Abu Dhabi (ICAD), as well as two industrial zones in Al Ain. As of early 2012 occupancy rates in all of the zones managed by ZonesCorp stood at 73% and applications continued to flow in. ICAD 2 saw the opening of two new factories in March 2012, each of them focusing on the production of equipment for the oil and-gas industry.

In the existing three ICADs are light, medium and heavy manufacturing facilities, with industries grouped in their own areas. Plans for ICAD 4 are still not fixed, but it currently appears that the zone will comprise marine industries, building materials, services and logistics. ICAD 5 will be dedicated to the automobiles assembly and manufacturing sector. ZonesCorp announced in February 2012 that two smaller zones were also being planned in the Western cities of Ruwais and Madinat Zayed. The former will cater to petrochemicals, oil and gas, construction materials and logistics, while the latter will focus on oil and gas, logistics and food processing.

**REGULATION:** In a region where governments must fiercely compete for industrial investment, the UAE – and specifically Abu Dhabi within it – is trying to keep well ahead of the pack. The UAE ranked above all the other countries in the Middle East and North Africa, barring Saudi Arabia, in the World Bank's 2012 "Doing Business" report, a sign the strategy so far is working.



Infrastructure development to help support industry is a priority

The UAE continues to be a very popular choice for industrial investment, ranking second (behind Saudi Arabia) in the region in the World Bank's 2012 "Doing Business" report.

Investment laws and regulations are expected to become more conducive to foreign investment, according to the 2012 "Investment Climate Statement" from the US State Department, pointing to the UAE federal cabinet's approval in December 2011 of a draft version of the Companies Law.

The law could permit foreign ownership of companies to increase from its current limit of 49%, but the classes of affected industries are yet to be defined by a cabinet resolution. Free zones in Abu Dhabi, including a large chunk of Kizad, already permit 100% foreign ownership, however.

Government agencies nonetheless remain aware of the need to continue cutting red tape. "Only a couple of years ago, submitting an application used to take more than six months to process, but we have cut this down to two months," Samer Al Haira, the vice-president of ZonesCorp, told OBG, adding that it is now seeking a further reduction to one month.

**SMES:** While Abu Dhabi may have a reputation for attracting large international corporations, the role of small and medium-sized enterprises (SMEs) is considerable. They account for 46% of national GDP and 86% of employment in the UAE, according to *SME Advisor*. What is more, they have high growth potential: a 2012 study by the Global Entrepreneurship Monitor found that there are more SMEs in the UAE

**Key manufacturing statistics, 2008-11**

| | 2008 | 2009 | 2010P | 2011E |
|---|---|---|---|---|
| Share of GDP at current prices (%) | 5.5 | 5.6 | 5.4 | 5 |
| Share of non-oil GDP at current prices (%) | 13.8 | 10.1 | 10.7 | 12.1 |
| Gross output (% of GDP at current prices) | 18.8 | 18.4 | 17.5 | 16.5 |
| Capital formation (% of GDP at current prices) | 2.7 | 4.8 | 4.6 | 4.3 |
| Compensation of employees (Dh bn) | 7.57 | 10.22 | 11.28 | 11.74 |

SOURCE: Statistics Centre – Abu Dhabi

Opportunities for local small and medium-sized enterprises exist in a number of segments, such as steel

with high-growth expectations than there are in any other country in the world that was surveyed.

While the business environment for industrial SMEs in the emirates may still be challenging, they noted that opportunities are open in a range of sectors. "I could cite cases of SMEs in the steel, printing and food-processing industries, for example. Some factories here have not needed more than $1m-$2m to be successful," said Al Haira. Satyajeet Roy, the head of commercial banking for Citibank in the UAE, told *The National*, a UAE-based newspaper, that there is room for SMEs to grow in areas including the production of industrial goods, chemicals and foodstuffs, along with environmental and IT-focused businesses.

Financing continues to present one of the largest challenges faced by SMEs in the emirate, with a limited number of banks providing facilities to start-ups. The government is taking steps to change this: the Khalifa Fund for Enterprise Development (KFED) was launched in 2007 to foster entrepreneurship and develop SMEs, and it continues to roll out new products. In May 2012 KFED and the National Bank of Abu Dhabi (NBAD) announced that they would jointly launch a private equity fund targeting SMEs with strong potential. Initially stocked with around $21m, it is hoped that further support from the public and private sectors will boost funds to some $136m.

Financing continues to be a challenge for the emirate's small and medium-sized enterprises, though the government is taking steps to address this issue

This initiative is one example of how banks are attempting to become more accommodating to the needs of smaller enterprises. Multinationals such as HSBC, Citibank and Standard Chartered now all have their own dedicated forms of SME groups. Yet, according to Dun & Bradstreet, SME loans in the UAE still stood at around 4% of total lending portfolios – higher than the GCC average, but lower than the 15% seen in many developed countries.

"We would like more support from the banking sector," Al Haira told OBG. On the regulatory side, steps could be taken to further this goal, such as an overhaul of stringent bankruptcy laws which some consider to be a detriment to new investors.

**OUTLOOK:** While the UAE's non-oil GDP is expected to grow in 2012, a slowdown in Abu Dhabi's main trading partners in Asia as well as fragilities in the wider global economy, could cause difficulties in the short term for export-oriented industries. At home, shortages in natural gas – on which several major operations rely as a feedstock – could also be a limiting factor, but several large-scale gas developments should mitigate the worst of these effects.

Like others in the GCC, Abu Dhabi is engaged in a large-scale industrial expansion programme, but there are good reasons to believe that there will be sufficient uptake from investors. These mainly include the attractiveness of low-cost energy inputs and new applications and project initiatives.

Low-cost energy is likely to be more attractive to global industrial giants at a time when profit margins are tight. New applications for investment continue to stream in, while many of these are still focused on the oil-and-gas and construction sectors, upcoming projects are also in areas such as glass, steel, food processing and clean technology. Infrastructure developments, such as the Khalifa Port and Etihad Rail, will likely help to inspire further interest among investors.

**Manufacturing gross output & value added, 2009-10 (Dh bn)**

| Type of activity | 2009 Gross output | 2009 Value added | 2010P Gross output | 2010P Value added |
|---|---|---|---|---|
| Food, beverages & tobacco | 3.66 | 1.34 | 4.05 | 1.85 |
| Textiles, garments & leather goods | 1.55 | 0.86 | 1.68 | 0.92 |
| Wood & wood products | 0.65 | 0.46 | 0.65 | 0.45 |
| Paper, printing, publishing & reprod. media | 0.70 | 0.34 | 0.74 | 0.37 |
| Chemicals, plastics & related materials | 54.04 | 10.85 | 60.64 | 12.52 |
| Non-metallic mineral products (except oil) | 10.87 | 4.25 | 51.28 | 4.85 |
| Manufacture of basic metal | 6.15 | 0.93 | 6.95 | 1.07 |
| Structural metal products (except mach. & equip.) | 9.45 | 5.39 | 10.76 | 6.18 |
| Machinery, equipment & devices | 6.48 | 2.20 | 6.76 | 2.30 |
| Furniture | 0.74 | 0.44 | 0.77 | 0.85 |
| Repair & installation of mach., equip. & other manuf. | 4.05 | 2.91 | 4.27 | 3.04 |
| Total | 58.38 | 29.99 | 108.63 | 33.32 |

SOURCE: Statistics Centre – Abu Dhabi

Mohammed H Al Qemzi, CEO, ZonesCorp

# Spreading development

## OBG talks to Mohammed H Al Qemzi, CEO, ZonesCorp

**How is Abu Dhabi attracting industrial investment while competing with its GCC neighbours?**

**AL QEMZI:** Each country within the region has its own advantages and disadvantages. The UAE has very prudent policies set by our rulers, and this has made Abu Dhabi a solid market for capturing investment. Many international companies have come to Abu Dhabi because the industrial sector is one of the key segments of the economy that the government is focusing on. Our main objective is to attract energy- and capital-intensive industries with high automation. At the same time, these industries should dovetail with the emirate's overall economy and add value to local operations. We are looking to raise standards by focusing on clean industries, and attracting investors that want to develop high-quality exports. The government has raised the standards for manufacturers that will help to increase the competitiveness of local products.

Abu Dhabi also offers investors different locations and choices to best suit their business needs. ZonesCorp and Khalifa Industrial Zone – Abu Dhabi are working in close collaboration to offer the proper services and infrastructure required by foreign and local investors. Together Khalifa Port and the Etihad Rail network will help enhance the development of both industrial zones by further facilitating the movement of goods and services. Along with operational assistance, Abu Dhabi also has a variety of support services available including education, social infrastructure and health care, along with other facilities. These services are already available and help promote investment.

**In what ways is investment outside of Abu Dhabi's city centre and industrial cities being encouraged?**

**AL QEMZI:** The most important aspect of all developments is the community that is created as a result of industrial investments. Projects that are under way will help to raise standards within the local community by creating new economic opportunities along with the supporting social infrastructure. This will help enhance the quality of life and create employment opportunities for the people in those areas for years to come.

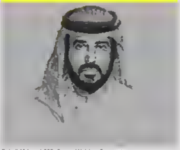
Each region within the emirate has its own strengths and targets as outlined by the government. Al Ain, for example, has industrial lands sufficient to cover its requirements for seven more years, based on our forecasts. Industries located in that region will build on the successful initiatives from Mubadala Aerospace and other stakeholders. The industrial lands in Al Gharbia, meanwhile, are greenfield developments. Furthermore, the Executive Council has allocated 14 sq km in Ruwais and 2.5 sq km in Madinat Zayed for future development.

There is a clear economic strategy for the region that anticipates billions of dollars of investment, providing industrial lands is a key facilitator of this development. All the relevant stakeholders are taking part in the economic development of Al Gharbia and are fully integrated with their objectives.

**To what extent will a clustering model be followed in future industrial developments?**

**AL QEMZI:** Clustering is very important as it enables as much value as possible from a particular product to be retained within a country. For example, Emirates Steel (ES) is an anchor tenant that is already operating within Abu Dhabi's Industrial City. A value chain is being created around ES to create more downstream products from this anchor. Similarly, with other anchor factories in the industrial zone, we are encouraging simultaneous downstream development and small and medium-sized enterprise creation. It is best to build a value chain around anchor industries.

At the same time, it is vital that these clusters are competitive on a global scale; we are undertaking initiatives to raise the standard of manufacturing to ensure local industries are globally competitive. By implementing best practices for operations, environment, quality and safety, the private sector is restructuring itself to comply with international standards, and this is for the benefit of both the investors and Abu Dhabi.



Suhail Al Ameri, CEO, General Holding Corporation

# Strategies for adding value

## OBG talks to Suhail Al Ameri, CEO, General Holding Corporation (SENAAT)

**What developments are under way in value-added manufacturing and metals production?**

**AL AMERI:** SENAAT is a key contributor to the industrial diversification of Abu Dhabi's economy through various investments. Emirates Steel (ES), for example, is the largest integrated steel manufacturer in the UAE; the commissioning of Phase II (A) takes the project's total capacity to more than 2m tonnes and the overall investment to date is approximately Dh10bn ($2.7bn). Another of our portfolio companies, Ducab, the technologically advanced cable manufacturer, has inaugurated and commissioned a Dh500m ($136.1m) high/extra high-voltage plant that will further serve local and international utilities markets. There are many examples where downstream manufacturing has developed as a result of investments in heavy industry. Downstream projects are positively received, especially if feedstock is provided by local firms. The government incentivises downstream investments through financing provided by a number of institutions, and initiatives like the Khalifa Fund. The initial projects for new heavy industries are generally outside of the reach of the private sector, but once the investment is made, downstream and supporting services will also benefit. The availability of competitively priced energy is our comparative advantage. Industries that rely on power continue to invest in Abu Dhabi to capitalise on this strength.

**What needs to be done in terms of infrastructure development to enhance local investment?**

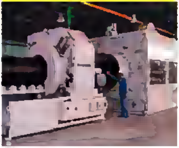
**AL AMERI:** SENAAT's total industrial investments in 2011 were at Dh2.7bn ($735m), compared to Dh2.5bn ($680.5m) in 2010, which highlights the positive local investment environment at the moment. We are self-funding and reinvest our profits into industrial projects. The government is also making significant investments in the emirate's industrial infrastructure. Projects such as Etihad Rail will help address transportation needs in the market, and encourage and support export-oriented industries throughout the emirate. Transport and road projects will help facilitate the transfer of both raw materials and finished products in and out of the various industrial zones. When this infrastructure is in place, it will encourage us and private sector players to continue industrial investment. This is yet another example of how the government is incentivising development in manufacturing and heavy industries.

**Which industrial segments do you anticipate will see the greatest growth and demand for employees?**

**AL AMERI:** The development of human capital is of critical importance; we employ more than 18,000 people, reaching Emiratisation levels of 25% in 2011, compared to 21% in 2010. Abu Dhabi targets industries that are more innovative and depend on automation, capital and energy, rather than those that are labour intensive. This utilises the competitive advantage of our economy. That said, heavy industries do create job opportunities. Additionally, due to the size of the investments, industrial companies can accommodate UAE nationals in a range of activities, from technicians to managerial positions. Industrial jobs pose unique challenges, because of the nature of the work and the need for shift hours. However, we find that nationals are still attracted to these jobs, and as downstream industries develop, more employees will be needed by the sector.

**How would you characterise the financing environment for industrial projects?**

**AL AMERI:** It is important to emphasise the role of financial institutions in industrial development. Commercial banks have concerns about real estate projects, as a result of the financial crisis. There is a slowdown in real estate financing, but banks still seek projects to fund. Many have decided to place their focus for future growth on manufacturing and industry. Banks use their own due diligence to evaluate projects' viability and we use commercial banks to assess the opportunities we pursue. They are an important part of the investment environment and encourage downstream projects.



A number of industrial segments are set to see further expansion

# Retaining value locally

## Diversifying the economy through petrochemicals and manufacturing

With an ambitious expansion plan in its petrochemicals and chemicals sector, Abu Dhabi is most notably pushing ahead in plastics and fertilisers. The several new petrochemicals projects due to come on-line in 2013-17 should make a substantial contribution to Abu Dhabi's Economic Vision 2030 by creating a more diversified economy in which a larger part of the hydrocarbons value chain is retained locally, as well as by providing extra inputs for what the emirate hopes will be an expanded manufacturing sector. In the coming years, however, most of Abu Dhabi's petrochemicals will be for export, with Asian countries set to account for a growing share of the output.

**PLASTICS:** Plastics are one of the key focus areas for industrial growth in Abu Dhabi, whose western city of Ruwais is witnessing the development of two multi-billion-dollar complexes. The first is an aromatics facility to be located in the Madeenat ChemaWEyaat Al Gharbia (MCAG), a chemicals industrial city under development on 70 sq km of land. With the master plan for the city now finalised, ChemaWEyaat, the joint-stock government developer of the site, has begun to develop the aromatics complex as the first phase of the initial chemical complex, called *tacaamol* ("integration" in Arabic).

A contract for project management of the complex was awarded to Foster Wheeler in April 2012, and it is scheduled to be up and running by 2017. Naphtha and liquefied petroleum gas raw materials feedstock will be piped from the nearby Abu Dhabi National Oil Company (ADNOC) industrial area – itself currently undergoing large-scale expansion – and will be used to produce benzene, paraxylene and mixed xylenes. These are eventually used to make materials such as phenol, polystyrene, polyester fibres and polyethylene terephthalate (PET). While this plant will initially export its output, it is possible that further facilities could be built for additional processing on-site.

The decision to use naphtha rather than ethane as feedstock for the new project makes long-term sense for Abu Dhabi. Plastics producers have normally used ethane, derived from natural gas, a feedstock which the emirate may find itself in short supply of until new developments are brought on-line (see Energy chapter). While the use of naphtha is likely to result in lower profit margins – especially at a time when oil prices remain high – it also enables ChemaWEyaat to branch out into a wider range of specialised chemicals for use in agriculture, pharmaceuticals, electronics and other areas. In this way, ChemaWEyaat's aromatics plant should serve to complement several already existing gas-fed operations, such as Borouge.

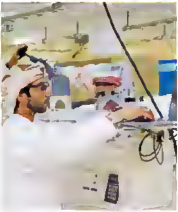
Several new chemical and petrochemical projects are expected to come on-line between 2013 and 2015, including a significant expansion in plastics manufacturing

Abu Dhabi's second major plastics development is being led by Borouge, which was formed in 1998 between ADNOC and Austria's Borealis. This venture has been manufacturing polyethylene and polypropylene since 2001, and is currently moving ahead with a massive expansion project, the latest phase of which will see the creation of the largest integrated polyolefins complex in the world. Produced from ethane feedstock, polyolefins comprise polypropylene and polyethylene, which are generally used in the manufacturing of products such as data cables, piping systems, automotive components and packaging.

Also based at Ruwais, this Borouge 3 expansion will boost output capacity at the plant from 2m tonnes per year to 4.5m tonnes and is due to be completed by the end of 2013. The expansion continues to create work in engineering, procurement and construction: in 2011, Alpine Deutschland snapped up a $111m infrastructure contract, while Hyundai was awarded the work on a $169m polyethylene unit.

**BOOSTING DEMAND:** In view of such grand projects, the question many will be asking is whether demand will be there to absorb this new capacity. The onset of the global economic downturn in 2008-09 created doubt over the outlook for the petrochemicals market, with demand and prices being hit negatively. The industry has become more cautiously optimistic in recent months, although many still predict

Expansion plans for the plastics segments are far-reaching, with development of the world's largest integrated polyolefins complex under way, among other projects


Foreign investment will help ensure increased skills transfer to locals

an oversupply in the global polyolefins market. According to a May 2012 study by the Kuwait-based Global Investment House, the huge expansion of petrochemicals production capacity in the GCC region over the next five years is likely to threaten the profit margins of less competitive companies. Furthermore, while Asian powerhouses such as China and India are accounting for a growing share of international demand, their rapid economic growth of the past decade looks set to slow.

**FUTURE POTENTIAL:** Still, Abu Dhabi's petrochemicals industry has several good reasons to be optimistic in 2012. For example, the Gulf Petrochemicals and Chemicals Association (GPCA) notes that 2011 saw a resurgence in demand in both regional and global markets, supporting a year-on-year growth in production rates of 4.8%. A Reuters survey conducted in mid-2012 found that plastics imports by China – Asia's largest importer and a major market for Abu Dhabi – are likely to grow by 5-7% in 2012, significantly more than in 2011, albeit not up to pre-2009 levels.

Furthermore, relatively cheap feedstock in Abu Dhabi and other Middle Eastern petrochemicals producers is helping them to secure a competitive edge in the global marketplace. According to Contax Partners, an oil- and-gas consultancy, the Middle East will supply 20% of the world's petrochemicals output by 2015, up from 16% in 2009. In 2011 alone, said the GPCA, output capacity for petrochemicals in the GCC region increased by 13.5%.

In the longer term, population growth and urbanisation look set to drive demand for plastics and other petrochemicals in emerging economies. "Global demand for petrochemicals looks set to increase as living standards rise in places like India and China," Mohamed Abdulla Al Azdi, the CEO of ChemaWEyaat, told OBG, adding that he did not think there was a threat of overcapacity in the GCC region. Furthermore, Abu Dhabi not only has very strong political relations with Asia's largest economies but has also increased its presence on the ground in the continent. Since 2009 Borouge has opened a compounding facility in Shanghai, announced plans to build its second factory in China, and opened a marketing and sales branch based in Beijing.

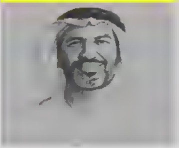
But while Abu Dhabi's new petrochemicals capacity will undoubtedly have China, India and South-east Asia predominantly in their sights, African and Middle Eastern markets are also likely to play an important role. In the Gulf, new infrastructure projects and expansions in the upstream and downstream energy sector are likely to create demand for plastics. In fact, Borouge announced in May 2012 that approximately a third of its production would be used in Abu Dhabi and the rest of the Middle East.

**FERTILISERS:** Ruwais is also witnessing an expansion of one of Abu Dhabi's major fertiliser producers, Ruwais Fertiliser Industries (FERTIL), a joint venture between state-owned ADNOC and French Total, which began operations in 1980. Korea's Samsung Engineering was contracted in 2009 to carry out the $1.2bn FERTIL-II expansion project, which involves the construction of two large new plants – one producing 2000 tonnes of urea per day, the other 3500 tonnes of ammonia – as well as a bulk storage facility and a reclaimer unit. The project is due for completion in 2013. This expansion comes just after a project aimed at removing bottlenecks, in which FERTIL began to produce larger granulated urea instead of pearled urea – an improvement allowing FERTIL to increase exports to the US, where demand for pearled urea is limited.

The emirate's other fertiliser producer, Abu Dhabi Fertiliser Industries (ADFERT), was established in 1995 as a joint venture with Chile's SQM. A smaller operation than that of FERTIL, it still claims to be one of the world's three biggest producers of water-soluble NPK fertilisers, of which it can churn out 50,000 tonnes annually. In addition, a newer granular production line can produce 60,000 tonnes every year.

The expansion work on FERTIL began in a year when fertiliser demand took a serious knock from the global financial crisis, sending prices down from $1000 per tonne for ammonia and urea to some $300 per tonne. But as with other petrochemicals products, the outlook for fertilisers in 2011 and 2012 seems to be more optimistic. In 2011 a growing demand for agricultural produce throughout the world put pressure on grain supplies; this increased grain prices and profits for farmers, who were in turn able to spend more money on fertilisers. "Urea is growing in importance in order to increase crop yields as well as meat production," Mohamed R Al Rashid, CEO of FERTIL, told OBG. "Approximately 10% of cattle feed is comprised of urea, so demand will continue to grow as global incomes and population increase." As for 2012, global urea sales may grow by 5%, while seaborne ammonia trade is also projected to rise by 5.5%, according to the International Fertiliser Industry Association. The study cautioned, however, these projections are subject to several factors, such as ongoing uncertainties in the global economy and volatility in crop prices.

Fertiliser manufacturing is seeing significant amounts of interest, with one of the emirate's main producers at the product planning a $1.2bn plant expansion by the end of 2013.



Khaled Salmeen, CEO and Managing Director, Kizad

# Major player

## OBG talks to Khaled Salmeen, CEO and Managing Director, Kizad

**What industries are being targeted for the Kizad industrial zone project in order to align it with the objectives of Economic Vision 2030?**

**SALMEEN:** Kizad is a key enabler of the Abu Dhabi government's Economic Vision 2030 plan to diversify the emirate away from an economic dependence on oil. The industrial zone is expected to contribute up to 15% of Abu Dhabi's non-oil GDP by 2030.

The targeted industries have been highlighted by the Economic Vision as primary segments that can drive the emirate forward. These include aluminium, steel, engineered metal products, petrochemicals and chemicals, pharmaceuticals and health care equipment, food, paper, print and packaging, trade and logistics, among a number of others.

The new zone will be a powerful magnet for foreign direct investment. With 60-80% of the goods manufactured within Kizad expected to be exported, this will add further value to the nation's economy. By targeting these industries, Kizad is expected, directly and indirectly, to create over 100,000 quality jobs by 2030.

**What is being done to ensure industrial infrastructure will be able to support investment in the zone?**

**SALMEEN:** Warehouses are being developed for logistics units, comprising pre-built warehouses and leased land plots for occupiers and third-party logistics providers to build their own facilities. The total land area allocated for pre-built warehouses is 400,000 sq metres and the development of the warehouses is planned for two phases. Low utilities and leasing costs, a 0% taxing environment, 100% foreign ownership opportunities and a vertically-integrated clustering approach all put Kizad in a prime position.

**How can small and medium-sized enterprise (SMEs) and local private companies add value in the area?**

**SALMEEN:** SMEs and local private companies add immense value to Kizad. The vertical integration is closely tied to both investors and service providers located nearby. Upstream, midstream and downstream producers are located in clusters that add value to the chain where anchor tenants produce basic materials. With each tenant supporting the others, it becomes a circle of value creation, backed by SMEs and local private companies that invest in Kizad and provide services.

**How will Kizad complement the existing industrial infrastructure in Mussafah and in other emirates?**

**SALMEEN:** Industrial zones, such as Mussafah, have been successfully providing facilities for tenants for years, and there will always be companies whose business needs require them to remain in these areas. For example, light industries at Mussafah need to remain close to their end-market in Abu Dhabi City.

Kizad offers a different proposition. The adjacent Khalifa Port will offer tenants direct access to deep-water loading and unloading facilities, enabling easy import of bulk raw materials and export of finished goods. Kizad will therefore be attractive for companies that either require more space or need easy access to global markets via sea, road, air or rail, rather than direct access to the local market in Abu Dhabi. Further, many warehouses and industrial units in Abu Dhabi are oversubscribed; Kizad will meet the increasing demand.

**How will clustering help encourage downstream and conversion industries in Kizad?**

**SALMEEN:** Vertically integrated clustering offers a number of important benefits. Each cluster is focused on a key primary industry, with a number of related midstream and downstream processes located close by. Other suppliers and service companies serving each stage of the value chain will also be encouraged to establish operations in the cluster. Value is created throughout the industry value chain. Anchor tenants produce basic materials while midstream producers take these materials as feedstock and produce value added products. Finally, downstream producers, also in the cluster, produce finished goods using the newly made products.

Consumer spending levels among the local population are high

# Destination: shop

## Potential is high pending the completion of new developments

Retailers in the emirate have the advantage of working in one of the world's wealthiest markets, with per capita income in 2010 pegged at $85,912.

As developers rush to cash in on Abu Dhabi's retail market, which they deem to be relatively untapped and undersupplied, total retail space is expanding at one of the fastest rates in the region. International brands are looming larger, especially at the top end of the market, where expensive cars and other luxury goods are being sold at record volumes.

Food retailers, by contrast, are facing tougher times as government price controls weigh on profit margins. Yet even here, as in much of the retail scene, new chains continue to enter the market. In this increasingly competitive sector, both developers and retailers are thinking more carefully about their business models.

**PURCHASING POWER:** Retailers in Abu Dhabi are operating in one of the wealthiest markets in the world. According to the Statistics Centre – Abu Dhabi (SCAD), per capita income increased by around 6.4% in 2011 year-on-year – one of the highest increases in the world, albeit still less than the 20% growth that was seen in 2008. When ranked alongside other Arab nations, it comes in second only to Qatar. This is especially remarkable in view of the rapid population growth, at around 77% between 2005 and 2010.

As well as being among the world's wealthiest, Emiratis are also among the highest spenders. A report released in early 2012 by the Arab Monetary Fund stated that domestic consumption in the UAE stood at a total of $176.9bn in 2010, the highest in the Arab world. With a population of 8.2m, that averages out at $21,577 in spending per person per year.

**CONSUMER CONFIDENCE:** Surveys of consumer confidence have presented mixed data. A quarterly survey conducted by YouGov and Bayt.com shows that consumer confidence in the emirates was falling in the second half of 2011, but rallied considerably in the first quarter of 2012, although not to the levels seen in 2007 and 2008 (see graph). Another survey, run by MasterCard between December 2011 and February 2012, found that optimism with regards to quality of life, regular income, the state of the economy and employment was at lower levels than it had been in the first half of 2011, though it was still positive overall.

Current inflation rates are unlikely to be of concern to upper-income groups. The consumer price index (CPI) registered a moderate average increase of 1.3% in the first nine months of 2012, compared to the same period in 2011, according to the SCAD. Restaurants and hotels increased by a remarkable 18.1% year-on-year, but this is an indication of the health of what is agreed to be a highly buoyant industry.

However, lower-income groups will certainly be feeling the pinch, as the cost of food and beverages increased by 1.9% in the same period. On the other hand, government subsidies are keeping utility costs very low and prices in the group – which contribute a substantial 42.1% of the overall change in the CPI – actually declined by 1.3%.

**EXTRA SPACE:** To judge by the statistics, developers continue to see Abu Dhabi City as holding a wealth of retail opportunities. After a more halting 2010, total retail space in the city grew by around 10% in 2011 and is expected to grow by 16.5% in 2012, according to Jones Lang LaSalle, a real estate consultancy. While several projects have suffered major delays, the improving conditions in local property markets should quicken the pace of development (see analysis).

Malls have been looming ever larger on Abu Dhabi's retail scene. A comparison of Jones Lang LaSalle's figures from 2011-12 reveals that non-mall retail space shrank from 54% of gross leasable area (GLA) in the second quarter of 2011 to 50% by the third quarter of 2012. This is expected to shrink still further as a number of new retail centres begin to come on-line over the course of the next three years.

Retail expansion continues, with shopping malls increasingly becoming the medium of choice. Non-mall retail space shrank from 54% of GLA in the second quarter of 2011 to 50% by the first quarter of 2012.

**UPCOMING ARRIVALS:** Among the projects scheduled for 2012 is the $190m Deerfields Town Square. This will be a relatively small development compared to some of its competitors, with around 80,000 sq metres scheduled to be built by the fourth quarter of 2012. The company's general manager, Banu Tas, conceded

in early 2012 that without Yas Mall – which is scheduled to be constructed nearby by 2013 – there would have been more interest in the square's leasing programme, but that ultimately a larger "destination" mall would have a positive effect on business by helping to attract customers to the area.

Located outside Abu Dhabi Island in a prime position on the highway between the capital and Dubai, the mall has potential to see its annual footfall grow in coming years, as the number of residents in the neighbourhood hit 90,000 in 2012 and is expected to jump to an estimated 200,000 by 2016, *Gulf News* reported. As of early 2012 more than 50% of the space had been leased. The developers are targeting the mid-market, including the hypermarket Carrefour and the Landmark Group, a lifestyle retailer. Food retailers are to make up 15% of the space, while entertainment – including a Grand Cinema – will occupy 18%.

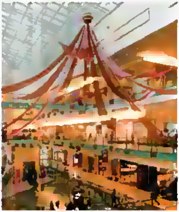
Also opening in 2012 is Capital Mall, a $270m development by Manazel Real Estate at Mohammad bin Zayed City outside Abu Dhabi Island. The mall is part of a 230,000-sq-metre master plan called 9712BMC that will itself offer just over 60,000 sq metres of retail space to be filled by fashion, jewellery and electronics stores, among others. The French hypermarket chain, Geant, is opening its first store in Abu Dhabi as the anchor tenant of the mall. The developers are hoping that its location – next to Abu Dhabi International Airport – will draw in visitors from all around the emirate, as well as Dubai.

The third mall is under development by Paragon Malls, a subsidiary of the UAE-based retail giant Tamouh. Their first project, Paragon Bay, overlooks the popular Marina Square on Reem Island and is within a short distance from residential, office and hotel space.

The biggest project under development is the $2bn, 235,000-sq-metre Yas Mall. Set to open at the end of 2013, more than 50% of the space has already been pre-leased. The mall is part of the larger Yas Island development which includes an IKEA and ACE Hardware that are both already open.

Not all of the new space is to appear in stand-alone malls, other retail offerings are being incorporated into mixed-use developments. A prominent example is Etihad Towers, which opened mid-2012. Catering to the luxury market, the high-rise residential towers include around 900 apartments, next to which stands an office tower. The retail "avenue" has already attracted dozens of luxury brands in clothing, jewellery and accessories. All of the outlets were pre-let – an indication of the high uptake. In addition to Etihad Towers, the Boutik on Reem Island, the Galleria at Sowwah Square and the retail mall in Nation Towers will also see retail space incorporated with residential and commercial properties, as well as – perhaps most importantly – hotels.

**TOURISM BOOST:** In a nod to the growing interconnection between the emirate's tourism and retail sectors, a luxury 382-room Jumeirah hotel is a part of the Etihad Towers. There is little doubt that retail developers will be highly encouraged by the emirate's currently expanding hospitality sector. Many new and upcoming developments look to engage the tourist market,



Shopping malls are now a mainstay of the high-end retail segment

choosing sites that sit close to hotels or providing easy access from the main airport.

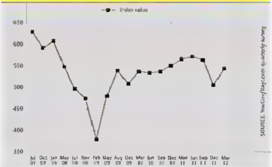
Abu Dhabi has been receiving unprecedented numbers of tourists in recent years and is undergoing a massive expansion in the hotel industry: 30 new properties are set to be built within the next three years, according to the Abu Dhabi Hoteliers Group. Total spending from tourists is higher in the UAE than anywhere else in the region, accounting for 54.6% of all tourist spending in the GCC, according to a 2011 report on retail markets compiled by Alpen Capital.

Some have voiced concern over the sustainability of a retail sector that is increasingly reliant on a steady flow of tourists into the country. Still, in an emirate where the population growth rate of UAE nationals is 4.8% per year, according to the SCAD, retailers can also be confident in the potential of the home market.

There may also be further opportunities in less touristy areas outside of the capital, in Al Ain and Al Gharbia. Oil-and-gas centres in the west, such as Ruwais, have also demonstrated particularly strong potential. Demand in Al Gharbia is expected to grow from 62,800 sq metres

The tourism and retail sectors are increasingly seen to be linked, and many new developments are looking for ways to specifically engage the tourist market.

UAE consumer confidence index, 2007-12



in 2010 to 165,000 by 2030, according to the Western Region Development Council. This would depend, however, on the success of a government drive to reverse population migration from the region.

**NEED TO INNOVATE:** Most observers agree that much of Abu Dhabi's current retail offering could be of better quality: layouts can be inefficient and unattractive, variety limited and accessibility poor. New developments look set to make a more appealing offering to Emiratis and tourists alike. But as GLA increases apace, developers are likely to find that innovative designs and unusual features will be more important than ever in winning tenants and keeping annual footfall high.

In a country where extremely high temperatures for more than half the year render outdoor entertainment unpalatable to all but the most hardy, there is a huge demand for an indoor leisure experience. One major trend in mall designs has therefore been to integrate entertainment venues and other attractions – cinemas, food courts, children's play areas and ice rinks, to name a few – into malls, along with the more traditional retail outlets. Building on models that enhance a holistic leisure experience will likely become more important. However, Abu Dhabi's relatively underdeveloped retail scene may mean that more traditional models are still successful for some years yet.

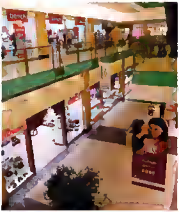
Retailers, as well as developers, must adopt strategies for a competitive market. According to the Sacha Orloff Group, a consultancy that advises on retail in the GCC and other markets, it will become more important for retailers to analyse and understand their customers' needs, such as through loyalty schemes. They may also have to put more resources into customer services, equipping their staff with the skills and knowledge necessary for presenting the brand to the customer in the best way possible. This could prove a challenge, given that one of the key issues faced by the retail sector in the Gulf is a shortage of skilled labour, according to the 2011 report by Alpen Capital.

**INTERNET SHOPPING:** One segment that could be explored in an increasingly IT-savvy population is that of e-commerce. Online shopping currently makes up a fraction of total retail revenues, but this could change. According to Euromonitor, a research firm, this market will double from $1bn to $2bn between 2012 and 2016 in the UAE, Saudi Arabia and Egypt.

"With increasing internet penetration, consumers in the GCC are gradually showing an inclination towards online purchasing," concluded the findings of the 2011 report conducted by Alpen Capital.

Others are more sceptical about its growth potential. They note that while shoppers are IT-savvy, they may not necessarily be IT-oriented: getting out of the house to go to the mall has become an important pastime and social outlet for many in the population, even as richer families often have the necessary staff to go and do their shopping for them.

A recent survey by Onecard, an online payment provider, found that consumers' concerns over internet fraud are the greatest obstacle to further growth in e-commerce. On the side of the retailer, too, there



One issue the retail sector faces is a shortage of skilled labour

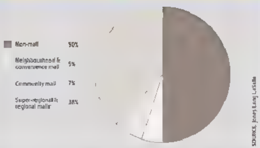
may be disincentives, such as the very high charges reportedly made by banks for payment services.

**LUXURY BRANDS:** While the potential future uses for e-commerce remain unclear, matters are less ambiguous when it comes to the rise of brands. According to a 2012 report by Bain and Company, a US consultancy, the Middle East will be a key component of growth in global luxury branded sales. As such, the likes of Abu Dhabi are set to play a more prominent role in international retail chains' networks. While franchise retailers occupy the majority of market share in the Middle East, global brands have also created joint ventures with local companies in order to enter the market directly.

Encouraged by reports of strong growth, many new developments in 2012, such as Nation Towers, the Galleria at Sowwah Square and the Avenue at Etihad Towers, are bringing a host of luxury brands to the emirate. The Chalhoub Group – which distributes Christian Dior and Louis Vuitton – reported sales growth of 35% in 2011, due in no small part to spending sprees in the likes of Saudi Arabia, the UAE and Qatar. Other major players in the UAE's luxury market include Al Tayer

Online shopping is believed by some observers to be ripe for rapid growth, though others are more sceptical, noting that many in the UAE see shopping as more of a social activity and not a necessary chore

Retail supply in Abu Dhabi, 2012 Q3



Though internet shopping may be increasing, many in the emirate see shopping as a social pastime

Insignia, the distributor of luxury international brands such as Bulgari and Dolce & Gabbana.

**AUTOMOBILES:** Figures released by luxury carmakers suggest that the market in Abu Dhabi and throughout the UAE has been more than healthy in recent months. BMW reported that the UAE accounted for 51% of total sales volumes for its BMW and Mini cars in the Middle East during the first half of 2012 – the best first half on record for the firm. Audi had a similar story to tell with more vehicles sold in the Middle East than in any other first half, with the UAE ranking top in sales volume. Mercedes saw sales grow by 19% in Abu Dhabi, compared to 13% in Dubai and 44% in Oman.

Mid-market brands appear to be faring no worse. Toyota, a Japanese brand, is the market leader in the UAE, and its sales have increased by 27% in the first half of 2012. Ford Middle East declared in July 2012 that its sales in the UAE had grown 38% over the same period. Not surprisingly, car dealerships are also doing quite a brisk business as well.

Despite strong prospects for the market in Abu Dhabi City, retailers will no doubt be looking to other urban centres in the emirate, such as Al Ain and major towns in Al Gharbia. In Madinat Zayed, the regional capital of Al Gharbia, Renault and Nissan now have larger showrooms than in Abu Dhabi City. The Emirates Motor Company, the authorised distributor for Mercedes in Al Ain as well as the capital, reported it had seen record-breaking sales in the first half of 2012.

**PRIVATE LABELS:** Despite the fact that lower-income groups in Abu Dhabi – including large numbers of migrant workers – feel the pinch from the rising cost of food, some retailers report that their customers prefer international brands to private labels. This situation could be changing; a 2011 survey by Datamonitor found that 22% more respondents from the UAE were willing to buy store labels in household care products in 2010 than they were willing to do so in 2009.

Hypermarkets may see challenges in the short to medium term, particularly as the segment works to adapt to new government price controls on basic commodities.

But with the economy now looking in better shape and consumer confidence still positive, "own" brands may now find it harder to penetrate the market. Another report, released in April 2012 by Euromonitor, found that sales of packaged foods are heavily fragmented, with private labels competing against strong multinational and national companies. While own brands are thriving in countries like the US, their future in Abu Dhabi remains the subject of speculation.

**HYPERMARKETS:** Perhaps the only subsector in Abu Dhabi's retail scene with a more clouded horizon is that of food and beverages. First introduced in mid-2011, government controls on 400 basic commodities – most of which are for foods or related to food – have resulted in some of the lowest food prices in the world.

According to a 2011 study conducted by *The National*, a UAE-based paper, foods such as flour, rice and pasta cost up to 25% less at Carrefour in the UAE than in supermarkets in the UK, Australia and France. Added pressure has been created by the high cost of imports. While the UN's Food Price Index dropped to its lowest levels in June 2012 since September 2010, a rebound in prices may be on the cards in the coming months.

Retailers agree that the current situation is putting serious pressure on profit margins at all outlets, but the news is not necessarily all negative. Smaller stores are at greatest risk of going out of business, but larger hypermarket chains will be much better available to absorb these reduced margins, due to their more developed financial situations and larger overall networks.

Furthermore, as larger stores sell a wider range of products for which prices are not controlled, profitable trade is still possible despite the government's enactment of price control measures. A 2012 report prepared by Euromonitor found that hypermarkets experienced the strongest growth in market share for packaged foods over the course of 2011.

This would explain why a number of new hypermarket chains are still entering Abu Dhabi. The French hypermarket chain Geant opened its first outlet in Abu Dhabi in March 2012, as part of a regional expansion drive that seems set to bring a total of 35 new stores to the UAE, Bahrain and Kuwait.

In October 2011 – after the introduction of the price controls – Spar International said it will open at least nine stores in the UAE before 2013. At the high end of the market, the UK's Waitrose supermarket opened its first store on Reem Island in mid-2012.

**OUTLOOK:** That so many developers and retailers are pouring into Abu Dhabi is a strong indication of its growth potential. Yet the market is also beginning to fill up. Developers looking to build further malls will have to think more about the location, layout and retail offering. Retailers will also have to consider carefully their target customers and new products.

Concepts that work well in other parts of the world – such as e-commerce and the strength of a supermarket's own brands – are not necessarily guaranteed a strong future in areas like Abu Dhabi. Still, with one of the highest per-capita incomes in the world, coupled with strong consumer confidence and a penchant for shopping as a pastime, Abu Dhabi will surely see continued investment in its retail sector in coming years.

# Aerospace & Defence

Promising prospects for future industry growth
Initial focus is on service and MRO business
Stepping up manufacturing of high-tech naval assets
Establishing Nibras as a key regional aerospace centre

The emirate aims to build up a local aerospace and defence industry

# Commercial sense

## Establishing a local aviation centre to develop capacity and attract investment

Mention Abu Dhabi to the average person, and while they might well think of oil, it is unlikely that they would think of aeroplanes. That looks set to change over the next 20 or so years as the emirate seeks to build up an aerospace and defence industry. In part this is out of a desire within the UAE to increase the country's own defence capacity, but also ties in with the emirate of Abu Dhabi's economic diversification strategy, referred to as Economic Vision 2030.

**ON ORDER:** The latter is particularly relevant to Al Ain, the emirate's second city, where a mix of public and private investment is envisaged to create a dedicated aerospace and aviation cluster, the Nibras Al Ain Aerospace Park, under Plan Al Ain 2030, its development plan. Given the current levels of spending in the aerospace and defence sectors, it makes sense from both a financial and a security point of view to develop the capacity to source some requirements domestically. At the 2008 Farnborough Air Show, Etihad, the UAE's national airline based in Abu Dhabi, made what was at that time the largest order in commercial aviation history, ordering up to 205 aircraft, of which 100 were firm orders, 55 options and 50 purchase rights. In line with this, local press reported in December 2011 that Etihad was to buy 10 Boeing 787-9 Dreamliners and two Boeing 777 Freighters for its cargo business for $2.8bn.

**DIVERSIFICATION:** A common practice in the aerospace and defence industries is the so-called offset programme: in lieu of a cash discount, some work is performed in the buyer's home country, contributing to the balance of trade and facilitating knowledge transfer. The scale of purchases by Etihad and the UAE defence establishment has created significant offset requirements to be met in Abu Dhabi.

Figures from the Stockholm International Peace Research Institute show that the UAE spent $16bn, or 6.9% of GDP on defence in 2010. This is an increase in absolute terms on the $15.9bn the previous year but a decline in percentage terms from an estimated 7.6% of GDP

On the military side, the UAE Offset Programme Bureau was set up in 1992 to derive economic and commercial value from the country's extensive defence procurement programme, and was renamed Tawazun Economic Council in June 2012 to mark its 20th anniversary. In 2011, the Defence Contractors Council was set up to facilitate communication between the Offset Programme Bureau and all defence contractors, and to provide a forum for the exchange of proposals and ideas. A great deal of the UAE's economic diversification over the past decade has pivoted around aviation and increased air links.

The country is home to two major international airlines, Emirates, based in Dubai and founded in 1985, and Etihad Airways, based in Abu Dhabi and founded in 2003. Both have been seeing annual growth in passenger numbers running at the double-digit mark for the past decade, and the onset of the world recession has done little to slow their growth. As such, both airlines have been expanding their fleets at breakneck speed.

Although no data as to the contribution of the aviation sector to Abu Dhabi's economy was available at time of press, according to the Statistics Centre – Abu Dhabi (SCAD), in 2011 transport and storage accounted for some 2.5% of GDP that year, or just over $5.4bn at current prices.

**DEFENCE SPENDING:** Precise figures on the UAE's military spending are difficult to come by, with little data in the public domain.

According to SCAD, in 2011 public administration, defence and compulsory social security accounted for 3.1% of Abu Dhabi's GDP, while the Stockholm International Peace Research Institute estimated that the emirates spent 6.9% of total GDP on defence in 2010, around $16bn. This was an increase in absolute terms on the $15.9bn in 2009, but a decline in percentage terms, with defence spending estimated at 7.6% of GDP in 2009.

In strategic terms, the UAE's defence forces are air-focused, with land and sea forces playing an ancillary role. This was not, however, reflected in personnel numbers, with 44,000 in the army, 2500 in the navy and 4500 in the air force, according to 2010 figures from the Institute for Near East and Gulf Mil-

itary Analysis. In addition to the regular armed forces, the UAE counts the presidential guard, who act as special forces. Also, the former National Critical Infrastructure Authority was merged with the coast guard to form the Critical Infrastructure and Coastal Protection Authority, which undertakes coast guard fisheries and oil rig protection, in addition to search and rescue duties, among other responsibilities.

According to a report by consultancy Deloitte in 2012, global defence spending was expected to be flat or declining that year, as developed economies such as the US, UK and European states instigated cuts as part of deficit reduction programmes, partly offset by increases in defence expenditure in China, India, Saudi Arabia, the UAE and Brazil. Although the UAE does not number among the top-10 defence spenders worldwide, its influence on the regional defence procurement market is significant.

**CURRENT AEROSPACE STRUCTURE:** In 2006 Mubadala Development Company, an investment company owned by the government of Abu Dhabi, formed a dedicated division to help develop a commercial strategy for the development of an aerospace cluster. The emirate's aviation skills base is still developing, but as a hydrocarbons economy, Abu Dhabi has plenty of capital to invest, and the ability to provide competitively priced energy. As such, Mubadala's goal has been to attract industries with a relatively high level of automation, while undertaking ventures to produce a dedicated cadre of skilled labour among the Emirati workforce.

**A GOOD FIT:** Rory Breen, the UAE country director for BAE Systems, said, "The development of a domestic aerospace industry fits very well with the UAE's diversification ambitions. The market continues to grow, especially as the government invests in developing its military capabilities."

Moreover, Mubadala holds stakes in several international aerospace players, including SR Technics in Switzerland, a leading service and maintenance, repair and overhaul (MRO) group, and Piaggio Aero, an Italian aerospace group active in the design, construction and maintenance of aircraft and engines.

Closer to home, Mubadala Aerospace also has a number of subsidiaries, including Strata, which manufactures composite aerostructures for aircraft assembly; Advanced Military Maintenance Repair and Overhaul Centre (AMMROC), a military MRO centre in partnership with Sikorsky Aerospace and Lockheed Martin; Abu Dhabi Aircraft Technologies (ADAT), a technical and maintenance services provider that to date is the sole MRO provider for General Electric's GEnx engines in the Middle East and North Africa; Sanad, which leases spare components and engines to the airline industry; and the Horizon International Flight Academy.

"In the current global cost-cutting environment, an increasing number of companies are looking towards outsourcing non-core activities," Abdul Khaliq Saeed, the president for Middle East and North Africa of the Mubadala Aerospace MRO Network, told OBG.

A growing aerospace industry will bring both investment and jobs

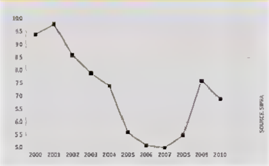
"Dedicated MRO providers stand to benefit from this shift as they attract business from airlines that previously performed these services in-house."

Strata was launched in 2009 and delivered its first products a year later, supplying Airbus with wing parts (flap track fairings) for its A330 and A340 models. In November 2011 Mubadala and Boeing reached an agreement for Strata to supply composite aerostructures to the firm, putting it on the road to becoming a tier-1 supplier to Boeing. Strata has been awarded a contract to supply Boeing with the B777 Empennage Ribs and B787 Vertical Fin Ribs.

AMMROC, a dedicated maintenance, repair and overhaul (MRO) facility, was launched in July 2010 as a partnership between Mubadala Aerospace and Sikorsky Aerospace, and in November 2010 US Defence Group Lockheed Martin bought a stake, although leaving Mubadala as principal shareholder. Aggregate committed investment in AMMROC exceeded $800m in 2011, according to a statement from Mubadala. In May 2011, it reached an agreement with Boeing to partner on specific transactions.

Global defence spending was expected to remain flat or decline in 2012, as developed economies such as the US and European states cut back, while countries such as China, India, Saudi Arabia, the UAE and Brazil will see a hike in their defence expenditure

UAE military spending, 2000-10 (% of GDP)



With airlines increasingly turning to third parties to carry out maintenance, repair and overhaul work, demand for these facilities has increased and local service providers stand to benefit.

AMMROC is headquartered at Abu Dhabi International Airport. It has planned a move to its purpose-built facility in Al Ain by 2015. To date, the majority of its work is conducted out of the UAE Air Force and Air Defence bases. In 2013 ADAT will be fully capable to perform repair and overhaul on Rolls-Royce Trent 500 & Trent 700, and IAE V2500 engines.

**INDUSTRY TRAINING:** Horizon International Flight Academy in Al Ain was founded in 2003, initially to train helicopter pilots, although since 2007 it has trained fixed-wing pilots as well.

The academy takes up to 200 pupils per year, of which around 60% are military or quasi-military clients, and the rest civilian. Horizon has allowed the UAE to meet its requirement for more pilots without going to the expense of sending trainees abroad. "The UAE has a highly developed aviation industry because of the major long-haul carriers and parallel support services," Hareb Thani Al Dhaheri, the CEO of Horizon told OBG. "This will become a generational industry going forward that will help boost the availability of human capital."

Finally, although not a Mubadala affiliate, the Al Ain International Aviation Academy (AAIAA), an extension of Abu Dhabi's Institute of Applied Technology, which opened in 2008, is another facility in Al Ain training aircraft maintenance personnel.

The AAIAA is certified by the European Aviation Safety Agency and recently partnered with Global Aerospace Logistics, a locally owned turnkey aerospace services provider, to train staff for air traffic control duties. Although hitherto the majority of its trainees have been Emiratis, the AAIAA recently accepted a squad of Omanis and aims to position itself as a regional training centre in the future.

**MRO FOCUS:** While Abu Dhabi's long-term aim is to develop an aviation and aerospace industry which is fully integrated along the production process, i.e. assembly, manufacturing, development and MRO, much of the emirate's initial focus is on the latter line of business. The worldwide trend towards outsourcing non-core activities means that airlines are increasingly turning to third parties to carry out this sort of work. Globally, the MRO business has been growing rapidly. At the MRO Americas conference in 2011, TeamSAI, an aviation consulting firm, expected MRO spending to grow at a compound annual growth rate (CAGR) of 3.8% between 2011 and 2016, and at a CAGR of 4.1% between 2016 and 2021. Asia was posited to see the fastest growth, with a CAGR of 6.8% between 2011 and 2021.

Aviation in the Middle East has been seeing sharp growth over the past decade, with the rise of carriers such as Emirates, Etihad and Qatar Airways, which in turn has led to greater demand for MRO facilities locally. Taken with factors such as the UAE's political stability and access to local and international capital, Abu Dhabi's position between the wealthy

European market and the rapidly growing South and East Asian economies not only makes it a logical location for the air transit business, but also for the MRO business. Another advantage is that a rapidly expanding carrier, Etihad, has its headquarters in the emirate, although Etihad by no means accounts for all the growth in the MRO business in Abu Dhabi.

"Developing a strong civilian and military maintenance, repair and overhaul industry within the emirate is a key component for the local aerospace industry. Aerospace-related manufacturing and design are also growing in parallel to the MRO segment," Fahed Al Shamesi, CEO of AMMROC, told OBG.

MRO also forms part of Abu Dhabi's strategy to develop its industrial base through partnerships with international firms. The emirate offers a competitive cost base and good infrastructure, but to move up the value chain and produce more complex machinery and services will require significant knowledge transfer into Abu Dhabi. As local MRO companies win more business with international players, in turn the credibility of the local industry will increase, helping prompt further investment and enhancing the expertise and skills base available in the emirate.

**NIBRAS:** In terms of aerospace, the core of the industry in the emirate is set to be the Al Ain Aerospace Park, branded as Nibras (from the Arabic word for "the guiding light of a lantern"), which is a joint project between Mubadala and Abu Dhabi Airports Company. The site, based around the current Al Ain International Airport is to be redeveloped in a 50-year period through 2060, although the first three phases, which run from 2010 to 2030, are the focus at present, in line with Plan Al Ain 2030.

The first phase consists of building the infrastructure, which will take place over a five-year period commencing in 2010, so that the anchor tenants, such as Strata and AMMROC, can move in, while over phases 2-3, which run from 2016 to 2030, the focus will be on attracting suppliers and promoting foreign direct investment from other aerospace organisations, catalysing a cluster effect.

In addition to the airport, Strata, Horizon and the AAIAA, the AMMROC facility is expected to create some 6300 new jobs at Al Ain. By 2030 Nibras is expected to contribute $1.7bn to the local economy and support around 10,000 jobs.

**A GROWING CITY:** Al Ain itself is currently a medium-sized city of around 350,000 inhabitants. It is known in the UAE for being relatively green (it shares an oasis with the neighbouring Omani town of Buraimi), and retains a great deal of its traditional architecture and culture. It has strong links with Abu Dhabi's royal family – Sheikh Zayed bin Sultan Al Nahyan, founder of the UAE, was born in Al Ain.

Raising the population to 1m as envisaged means that it will be necessary to attract more industry. Such a population hike will necessitate jobs, and although the city is recognised as being slightly more conservative and as a result women have not traditionally been encouraged to enter the workplace as much

The emirate is geographically well positioned to serve air transit and MRO businesses

as in the capital, the aerospace industry is one that offers high-calibre jobs that the authorities know Emiratis will want. Specifically, women's relatively greater dexterity is sought after in many branches of the industry. Indeed, the majority of Strata's Emirati workforce are women. The authorities expect the high-calibre jobs to attract both women and men from across the emirate. However, the authorities plan to retain a significant proportion of foreign workers in the short to medium term to ensure the knowledge and skills transfer necessary to make the aerospace cluster a success in the long term.

**DEFENCE INDUSTRY STRUCTURE:** Although there is a degree of overlap between civilian and defence-related aerospace facilities in Abu Dhabi, as in the case of AMMROC, for instance, the emirate also counts a core of defence-oriented businesses.

Of these, the bulk are offspring of Tawazun Economic Council, which has successfully set up over 40 joint ventures over the course of its existence, attracting more than Dh4bn ($1.09bn) in foreign investment and contributing noticeably to the diversification of Abu Dhabi's economic base.

Tawazun Holding, a strategic investment company set up in 2007 as a fully owned subsidiary of the Tawazun Economic Council, has several subsidiaries and partnerships engaged in the UAE's nascent defence industry. These include Tawazun Precision Industries, a manufacturing and service centre for military components; Caracal, a small arms manufacturer with two further subsidiaries, German rifle and shotgun manufacturer Merkel and Tawazun Advanced Defence Systems, a sniper rifle manufacturer arising from the restructuring of Russia's Tsar Cannon Group; and Abu Dhabi Autonomous Systems Investments, a maker of remote-controlled vehicles and drones which produces its own unmanned aerial vehicle system known as Al Sabr, with a range of up to 150 km from the relevant ground communications system and an endurance of up to six hours.

The core of the aerospace industry in the emirate is likely to be the Al Ain Aerospace Park. Branded as Nibras, the project is a joint venture between Mubadala and Abu Dhabi Airports Company.

The majority of defence oriented businesses are offspring of Tawazun Economic Council, which has established more than 40 joint ventures and attracted over $1.09bn in foreign investment.

In October 2012 Nimr Automotive, a maker of armed vehicles, took on local firm Centurion Investment as a new strategic shareholder. Under the terms of the deal, Tawazun Holding retains a 60% share in Nimr, Centurion takes 35% and Saeed Bin Jaber Al Suwaidi 5%. The Bin Jabr Group assembles mini-submarines and armoured vehicles, as well as supplying uniforms to the military. Tawazun Dynamics, a joint venture with South Africa's Denel Group, produces, designs, assembles and manufactures guidance kits for precision guided airborne munitions.

Other companies under the Tawazun stable include Burkan Munitions Systems, a joint venture with local conglomerate Al Jaber Trading Establishment and German group Rheinmetall Munitions Systems, which assembles and tests a wide range of ordnance and plans to undertake munitions refurbishment, research and development (R&D), and training, and Caracal Light Ammunition, which has been producing ammunition at its Abu Dhabi plant since 1994. Many of these industries are located at Tawazun's industrial park near Abu Dhabi City.

**OTHER DEFENCE PLAYERS:** Among other players, International Golden Group (IGG) has six subsidiary divisions – Integrated Services Centre, Golden Marine Systems, GA Land Systems, Emirates Gateway Security Services, Global Aerospace Logistics – in which local conglomerate Emirates Advanced Investment has a controlling stake, as well as Denel Middle East, which is a partnership with South African defence group Denel. Other partners of IGG include France's Thales and US firm General Dynamics.

IGG supplies turnkey integrated products and integrated systems for the UAE land, sea and air forces. Vallo represents Czech armoured vehicle maker Tatra, and was reported in local press in 2010 to be considering setting up an assembly plant locally.

In addition to hardware manufacture, assembly and repair facilities, Abu Dhabi is also home to a number of defence service companies. Yahsat, a subsidiary of Mubadala's ICT division, has two satellites, which while available for civilian use, also offer secure communications to the UAE military, using Ka-band technology. Abu Dhabi Systems Integration, a joint venture between Abu Dhabi Ship Building (ADSB) and Italy's SELEX Sistemi Integrati, is a systems integrator specialising in naval and coastguard support. Advanced Integrated Systems provides internal security and anti-terrorism solutions, specialising in four main fields of defence and safe city and urban management: systems geared to civil defence, airport security, border security and critical asset security. Al Fahad Group offers surveillance and security systems including remote communications systems to both military and civilian clients.

Meanwhile, Al Taif Technical Services was launched by Mubadala in 2006, winning a 20-year contract to provide depot-level MRO services across all UAE Armed Forces vehicle platforms, and is one of the leading life cycle service providers for tanks and armoured vehicles in the region. Al Naboodah Protection specialises in supplying protective equipment and clothing for military personnel.

**FOREIGN INVESTMENT:** While UAE investment in defence is motivated by security concerns and a desire to have an independent UAE defence infrastructure, the authorities also recognise the catalytic potential such industries can have on other areas of the economy. While many firms in the defence and aerospace sectors in Abu Dhabi have their origins in offset programmes, they are run on a commercial basis. With emerging markets likely to drive growth in world defence spending, developing capacity in the UAE looks increasingly attractive.

In aerospace, demand for aircraft, pilots and support services is thriving across the Middle East, with Abu Dhabi Airports Company estimating passenger growth at 7.9% per year up to 2020, and $118bn in aircraft orders due to be delivered to the UAE alone over the next eight years, according to ADAC.

While much of the present UAE aerospace industry remains driven by the spending of semi-public entities and public investment funds, over the long term such entities are designed to turn a profit, and one way to do that is further collaboration with international partners. Furthermore, the UAE is politically very stable and maintains excellent relations with most of the world. For aerospace industries, the fact that the UAE dirham is pegged to the dollar, in which most transactions in the industry are denominated, eliminates currency risk.

Mubadala's policy is to develop seed industries in the Nibras Al Ain Aerospace Park, which will then attract further private investment, and particularly small and medium-sized enterprises around them, intensifying the clustering effect. Although Nibras has yet to achieve critical mass, the seed industries are set to be in place within five years' time.

**EXPORT POTENTIAL:** Although the defence and aerospace industries in Abu Dhabi and the UAE are primarily geared to meeting national requirements generated by the home defence establishment and the country's growing aviation industry, there is potential to become an arms exporter on the regional level, and further down the line, an exporter of civilian aircraft on the international level.

Abu Dhabi already exports certain defence items to other militaries in the region. For instance, Caracal has supplied arms to the Jordanian and Bahraini security forces, and Tawazun Holding's companies have taken an increasingly prominent place at the biennial Milipol Qatar trade fair and expo, which is geared to supplying the needs of internal security agencies. ADSB has also supplied patrol boats to the Bahraini navy, delivering four landing craft in 2010.

Over the long term, greater GCC cooperation, particularly in terms of procurement, could benefit defence manufacturers in the UAE and in Abu Dhabi in particular. Although there is currently relatively little integration across the region, in terms of defence procurement, with the right multinational partners, it is conceivable that the UAE could move

within a relatively short period toward producing basic defence platforms for export, which could be scaled up or down as per customers' specifications.

Moreover the GCC has expressed its long-term aim of reaching greater level of interoperability among regional naval and air forces, which may in the long run lead to a closer level of cooperation, in terms of design and procurement, although no formal deadline for attaining this has yet been set.

**INTERNATIONAL LINKS:** International linkages look set to prove essential to the success of both the aerospace and defence industries in the emirate. While there are controls over transfer of knowledge and intellectual property, this is nothing new in the defence industry, and the UAE's good relations with most of the world mean restrictions on export of technology to the country are unlikely to prove too onerous. The existing infant industries produce relatively simple products at the bottom end of the value chain. It is acknowledged that by making higher added value products the industry will begin to be able to pay wages at a level Emiratis will find attractive, rather than relying on expatriate labour.

To date, and as in similar markets in the region, there is little domestic R&D capacity in the UAE that might help to achieve this. However, given the close links the nascent domestic aerospace sector enjoys with top international aerospace groups, this need not necessarily be a problem especially if the country continues its efforts to improve its educational system over the longer term. Furthermore, the large number of offset projects engendered by its past defence spending have already succeeded in building up a certain level of expertise within the local defence industry. Given the right support, this could become the nucleus of a domestic R&D network.

Ahmed Selim, VP for the Middle East and North Africa with Northrop Gruman, told OBG, "It is difficult to gain expertise in the aerospace and defence industries, as it generally requires generational experience and many years to develop the capacity. That being said, Abu Dhabi has attracted international investment to encourage knowledge transfer in this field, which will help jump-start its development."

At the same time a number of national defence companies are looking to develop the R&D side of their businesses. It is possible that Emirati and international companies may form research partnerships with local universities in the future. "Foreign aerospace and defence companies do participate in local training programmes. This is important because research and development is at the core of developing an aerospace industry," Selim said.

**NAVY:** In addition to the aerospace industry, some naval and commercial shipbuilding also takes place in the emirate. ADSB was established in 1996, and is listed on the Abu Dhabi Securities Exchange, though Mubadala holds a 40% share and the Abu Dhabi government a further 10%. It is the only yard in the Gulf capable of building, refitting and repairing naval craft, while Al Fattan Ship Industry produces patrol

Strata aims to become a tier-one supplier, developing and manufacturing key parts of commercial aircraft

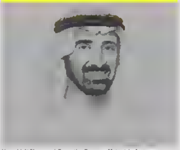
boats for the UAE navy (see analysis). Grandweld, established in 1984 as part of Stanford Marine Group, is an Abu Dhabi shipyard specialising in the manufacture, repair and conversion of offshore vessels, including tugs, patrol boats and dive maintenance support boats, and employs over 1500 workers.

The UAE is also currently in the process of building its own corvettes, known as the Al Baynunah class. Initially conceptualised in 1993, the first ship was completed at Cherbourg in France. However, the remainder of the work is being undertaken in Abu Dhabi, with all six planned corvettes due to be in service by 2013. In addition, the UAE has ordered 12 patrol boats, known as Ghannatha class, which are scheduled to come into service in 2015. As with the Baynunah project, the initial boat will be built abroad, in this case in Sweden, with the remainder being constructed at ADSB facilities.

In addition, Abu Dhabi MAR, an investment fund, was to take an 80% stake in German shipbuilder Blohm + Voss but the deal fell through in mid-2011. In 2010 Abu Dhabi MAR took a 75% stake in troubled Greek shipbuilder Hellenic Shipyards.

**OUTLOOK:** While both the defence and the aerospace industries in Abu Dhabi remain in their infancy, prospects for both are promising. In aerospace, the long-term vision is to see the local manufacture of aircraft, as well as assembly and MRO. The existing nascent industries currently produce relatively simple products at the bottom end of the value chain. It is acknowledged that by making higher-value-added products, the industry will begin to be able to pay wages at a level Emiratis will find attractive, rather than relying on expatriate labour. Burgeoning growth in the regional aviation industry is leading to an increasing number of aerospace players, which suggests to investors that locating in Abu Dhabi makes sound commercial sense, while the aerospace park at Al Ain should lend the industry quality infrastructure and the benefits of proximity

Although many local firms in the defence and aerospace sectors have their origins in offset programmes, they are designed to turn a profit over the long term. With emerging markets likely to drive growth in world defence spending, boosting capacity in the UAE looks attractive.



Homaid Al Shemmari, Executive Director, Mubadala Aerospace

# Far-reaching benefits

## OBG talks to Homaid Al Shemmari, Executive Director, Mubadala Aerospace

**How does Abu Dhabi's emerging aerospace industry fit within the context of Economic Vision 2030?**

**AL SHEMMARI:** Economic Vision 2030 is the template that helps guide the economic development of the local economy, and aerospace has been identified as one of the key industries within this vision. In 2006 Mubadala examined the aerospace sector to identify where Abu Dhabi would fit within the industry in a global context. The emirate has three key advantages: high capital, low-cost energy and our small national population, which requires us to focus on automation. As such, the local sector is focused on segments that are capital- and energy-intensive, and highly automated.

We work closely with original equipment manufacturers (OEMs) to bring leading technology to Abu Dhabi and to develop new areas of technology together going forward. We also collaborate with our partners and local stakeholders to identify opportunities where we can work together to invest and capitalise on the emirate's purchasing power via the offset programme and the local airline carriers' orders. This will enable the emirate to capture additional value from its purchases. In short, the aerospace industry has far-reaching benefits for the emirate and is viewed from a comprehensive standpoint; we hope 3% of Abu Dhabi's non-oil GDP will be generated by the aerospace sector by 2030.

**To what extent are investments being made to address the human capital requirements for the developing aerospace and aviation industry?**

**AL SHEMMARI:** This sector creates high-end technical jobs, and we believe that this is one of the most attractive industries for UAE nationals to work in. Key stakeholders such as the Abu Dhabi Education Council, various universities and technical colleges are working to address the human capital requirements for our industry. UAE nationals graduating from high school are looking for employment options, so we are trying to raise awareness in high schools and develop a career path and associated educational programmes that will encourage them to explore the aerospace industry. We are also tapping into a wider population of expatriates which will serve to complement and augment the national workforce for the sector.

**How will the growth of the aerospace sector add to the social and economic welfare of Al Ain?**

**AL SHEMMARI:** Al Ain has been selected as the key location for the aerospace industry sector for a variety of reasons. It is the second-largest city in Abu Dhabi with a historical focus on tourism and agriculture. According to Economic Vision 2030, Al Ain should grow from 350,000 inhabitants to around 1m by 2030. As such, it is important to create employment opportunities for UAE nationals by bringing industry to the region, while at the same time maintaining the local culture and not overwhelming the city. Aerospace is the main industry that can fit within these criteria.

Geographically Al Ain is in the middle of three major seaports and has good availability of human capital. The development of the local aerospace industry will also encourage additional investment in industries that synergise with the sector. This will create employment opportunities and the need for more social infrastructure, thereby adding to the overall welfare of the city.

**What initiatives are under way to create a more competitive and dynamic investment environment?**

**AL SHEMMARI:** Abu Dhabi is a very attractive destination for investment. It has a stable political system, a strong industrial and financial infrastructure, and a rich culture which is welcoming to expatriates.

The government is also very supportive of the private sector. Abu Dhabi is a major buyer of aerospace products and services, so we would like to develop win-win relations with multiple OEMs and industry players in the emirate to encourage local investments. Additionally, the Nibras Al Ain Aerospace Park will attract leading international aerospace organisations to invest in the emirate to better serve their regional customers.

Nibras Aerospace Park is expected to provide 10,000 jobs by 2030

# Extended reach

## Plans are in the works to make Nibras a key regional aerospace service and manufacturing centre

At the centre of the emirate's plans for the defence and aerospace sector is the Nibras Aerospace Park (Nibras) in Al Ain, the emirate's second-largest city. The Nibras project dovetails with Economic Vision 2030, which is focused on diversifying the economy, and is being overseen by Abu Dhabi Airports Company, a publicly owned company which owns the existing Al Ain International Airport (as well as Abu Dhabi International Airport and a number of smaller airports around the emirate), and the Mubadala Development Company, a strategic investment arm of the Abu Dhabi government. Mubadala already holds stakes in a number of aerospace businesses overseas as well as in Abu Dhabi itself.

**CLUSTERING:** Integral to Nibras is the concept of clustering, whereby businesses form linkages along the supply chain and geographically giving the cluster a competitive advantage. Indeed, according to Fahed Al Shamesi, the CEO of Advanced Military Maintenance Repair and Overhaul Centre, a local maintenance, repair and overhaul (MRO) firm, "Al Ain will serve as an aerospace cluster for the country and region as a whole. Having many companies located in close proximity will allow service providers to leverage off one another."

Integration into global supply chains is also important, and thus Nibras's strategy is to partner with international players to build up seed industries, which in turn attract small and medium-sized enterprises (SMEs) and ancillary services, creating an aerospace assembly, MRO and manufacturing centre in Al Ain.

**BUILT IN PHASES:** The master plan for the Nibras aerospace park will be developed in a 50-year period, spread out between 2010 and 2060. Strata, a Mubadala subsidiary was launched in 2009 in Nibras.

Strata has already formed partnerships with Airbus, Austria's FACC, Boeing, Alenia and SABCA to produce composite structures for aircraft. Composites are manufactured from a variety of different materials, such as carbon fibre and various resins. Such materials are generally lighter and more hard-wearing than conventional ones such as titanium, and therefore allow for greater fuel efficiency and in certain cases, are better suited to building more aerodynamic designs. As such, the aerospace industry is witnessing a shift towards greater use of composites. Strata aims to become a tier one supplier – designing, developing and manufacturing key parts for the next generation of commercial aircraft.

Al Ain is also home to two training institutes: Horizon International Flight Academy, which trains military and civilian pilots, and Al Ain International Aviation Academy, which provides training in aircraft maintenance and air traffic control.

**MULTIPLE TARGETS:** The plan envisages that Nibras will contribute Dh6.4bn ($1.7bn) to the emirate's GDP and provide 10,000 jobs by 2030. The air park will cover some 25 sq km, of which 5 sq km will be dedicated for aerospace industries consisting of industrial facilities, and the rest of business parks, educational facilities and residential areas, and a logistics zone based around the existing Al Ain airport.

Nibras has been carefully designed. Given the pace of technological advance and the growing urgency of environmental considerations, the aviation and aerospace business is one for which the rate of change looks particularly rapid. As such, the layout of the park is key. The site is greenfield, and has ample space far from residential areas, obviating many restrictions. The UAE is a generally cost-competitive environment, and the whole Nibras complex has been assigned freezone status, thus allowing for 100% foreign ownership, and exemption from corporate and personal income tax.

**MEETING REGIONAL DEMAND:** Within the region, carriers like Etihad, Qatar Airways and Emirates have been growing quickly. Abu Dhabi International Airport recorded a compound annual growth rate of 18.5% in passenger numbers between 2006 and 2011, while according to Mubadala, currently around 20% of confirmed aircraft orders originate from the Middle East. With the region leading demand for planes, pilots and MRO facilities, Nibras is well placed to position itself as a future aerospace service and manufacturing centre.

Clustering and integration into global supply chains are key parts of the plan for Nibras Aerospace Park in Al Ain. Its strategy is to partner with international companies to build up seed industries, which will attract small and medium sized enterprises.

The emirate is located on one of the world's busiest sea lanes

# Maritime power

## Building and servicing high-tech naval ships

With a coastline of more than 700 km, facing onto one of the world's busiest and most strategically vital sea-lanes, the UAE's maritime defence has long been of central importance to Emiratis. In recent times Abu Dhabi has come to play a key role in this thanks to its shipyards, which have recently proven well up to the challenge of manufacturing high-tech modern naval assets. "The future of shipbuilding in the UAE is very strong," Mohammed Rashid Musabah Al Rumaithi, the chairman of Al Fattan Ship Industry, told OBG. "The long coastline makes it necessary to have a healthy domestic industry that can service and support the local requirements." This bodes well for the country's strategy of diversification, going in tandem with developments in the UAE's domestic aerospace industry.

**VERSATILE VESSELS:** The UAE Navy has traditionally been a small, compact force, primarily designed for coastal protection. Recently, however, the UAE navy has taken a major leap forward. Central to this has been the Baynunah class corvette programme, begun back in 2004. The biggest naval building programme in the region, this is seeing the construction of six corvettes – multi-purpose warships with a range that enables them to patrol exclusive economic zones as well as offer coastal defence. The construction programme runs up to 2014, with five of these versatile vessels being built in the UAE itself and four already launched.

These are sophisticated boats, too. Built with steel hulls and aluminium superstructure, they carry advanced weaponry designed to combat threats from both sea and air, via complex missile, gun, radar and electronic countermeasures systems. The 71.3-metre, 915 tonne vessels which also have a helicopter deck aft, have low draughts – at 2.8 metres – to enable them to operate effectively in the shallow waters of the Gulf.

**LAUNCHES:** The building programme began with the signing of a $1bn contract between the UAE Ministry of Defence and Abu Dhabi Ship Building (ADSB) in 2004. Under its terms, ADSB became the primary shipbuilder for six corvettes of the class, while France's Constructions Mechaniques de Normandie (CMN) became a key contractor. Indeed, the first vessel was built in CMN's Cherbourg shipyard, launching in 2009, with the design carried out jointly by CMN and ADSB. While the first vessel was under construction in Cherbourg, work began on the others at ADSB's shipyard in Mussafah, Abu Dhabi. A steady programme of launches followed with the second, the *Al Hesen* and the third, the *Al Dhafra* launched in 2011, with the fourth of the class, the *Mezyad*, launched in February 2012.

The launches provide a shop window for a fast-developing industry – naval ship building. This trade is centred in Mussafah, where ADSB has recently extended its facilities. The company announced in February 2012 that it had completed an extension of its quay wall by 155 metres, while also finishing construction of an electrical substation and pontoon.

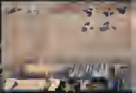
**REPAIRS & SERVICES:** Mussafah is also home to Al Fattan Ship Industry, which is also in naval shipbuilding and servicing. The company works joint ventures too with Goltens of the US, and Fincantieri. Indeed, cooperation with foreign outfits is very much a characteristic of the UAE naval shipbuilding industry, with ADSB's Baynunah class fitted with French Exocet missiles, US Raytheon vertical launchers and RAM close in air-defence missiles, German Rheinmetall Waffe Munition decoy systems and Swedish Saab surveillance radar. UAE shipbuilders also carry out regular repair contracts on military vessels from other navies in the region. "There is significant potential to bring more segments of the ship building value chain into Abu Dhabi," said Al Rumaithi. "Currently steel and equipment is available, however, engines and other high-value items are still imported from abroad."

As a result shipbuilding and MRO, particularly in the naval arena, are likely future growth areas for the UAE economy – welcome news for the strategists of economic diversity in Abu Dhabi. With military spending on the increase across the GCC too, there could be plenty of work for the shipyards in the years ahead.

ADSB has recently extended its quay wall and finished building a new electrical substation and pontoon as part of an expansion into maintenance, repair and overhaul services.

# Transport

Transforming public transport to reduce vehicle usage
Expanding aviation facilities to keep a competitive edge
Plans to integrate a national rail network with the GCC
Meeting demand for global exports via better sea links

The population of Abu Dhabi City is set to reach 2m by 2020

# Keeping things moving

## Investments to improve connectivity on land, sea and air

Transport and storage contributed approximately Dh20.62bn ($5.6bn) to the Abu Dhabi economy in 2011, according to figures from SCAD. This equated to 2.6% of GDP

As it continues to develop and diversify its economy, transport is playing a central role in the long-term development of Abu Dhabi. Not only does the growing population mean investment is required to keep Abu Dhabi City moving, but transport in the broader sense occupies a significant position in both the emirate's economic diversification strategy, known as Abu Dhabi Economic Vision 2030, as well as in Plan Abu Dhabi 2030: Urban Structure Framework Plan, the comprehensive roadmap for the city's development over the coming two decades.

**SECTOR IN NUMBERS:** In mid-2011, the population of Abu Dhabi was 2.12m, as per figures from Statistics Centre – Abu Dhabi (SCAD), compared to 1.4m in 2005. According to projections in Capital Plan 2030, the plan drawn up by the Urban Planning Council (UPC), the population of the Abu Dhabi metropolitan area stood at 930,000 in 2007 and was set to reach 2m by 2020 and 2.6m by 2030.

Abu Dhabi City is situated on the island of the same name and was largely built during the first oil boom of the 1970s with a maximum population of 600,000 in mind. It is therefore acknowledged that the capital requires extensive remodelling to enable it to cope with the projected rise in inhabitants. The populations of other regions within the emirate are also growing rapidly; figures from the UPC show the population of the Al Ain region projected to go from 568,000 people in 2012 to 1m inhabitants by 2030 and the population of Al Gharbia region to rise fourfold, from 107,000 in 2005 to 450,000 in 2030.

On the federal level, the UAE's connectivity is already a key selling point for attracting businesses and investors, while the investments Abu Dhabi has made under the Economic Vision 2030 strategy in a range of sectors running from manufacturing, tourism and real estate to media and the creative industries have already increased the demand for transport and heightened the need to enhance the emirate's connectivity. To this end, significant investment is taking place across the full range of transport modes to turn the sector from a subsidiary supporter to a major driver of the economy in its own right. In 2011, according to SCAD, transport and storage contributed some Dh20.62bn ($5.6bn) to the emirate's economy at current prices, equal to 2.6% of GDP.

**REGULATION:** Although certain regulatory mandates such as civil aviation fall to federal organisations like the General Civil Aviation Authority, transport is primarily the responsibility of each individual emirate, and in Abu Dhabi the Department of Transport (DoT) is in charge of the overall transport system. The DoT primarily functions as a regulator, although it does run certain services, such as the public transport network – including buses and taxis – directly.

In other fields, day-to-day operations are left to a number of state-owned companies which are generally run on a commercial basis. These include Abu Dhabi Ports Company (ADPC), Abu Dhabi Airports Company (ADAC) and the UAE's national carrier, Etihad Airways. The UPC oversees the planning function in the emirate and as such is responsible for drawing up the urban structure plans according to which Abu Dhabi City and the rest of the emirate's cities and towns are to grow and be remodelled.

In addition, the DoT unveiled its own roadmap, the Strategic Transport Master Plan, in 2009 to provide a framework for the development of transport infrastructure. It incorporates local development schemes and focuses on developing a multi-modal public transport system, with investment in metro, light rail and water taxis, expansion of bus networks, and spending aimed at improving road, sea and air links.

**AVIATION:** One of the most important transport segments in the UAE is aviation. Although official figures for its contribution to the economy were not available at the time of writing, Sultan bin Saeed Al Mansouri, the federal minister of economy, told the Abu Dhabi Global Aerospace Summit in April 2012 that aviation had directly contributed Dh61.3bn ($16.7bn) –

6.3% of national GDP – a figure that rose to around Dh150bn ($40.8bn), or roughly 15% of GDP, when taking into account indirect effects such as tourism. The UAE is about a four-hour flight from both affluent European markets and the rapidly growing economies of the Indian subcontinent, which has helped it to establish itself as a regional business centre.

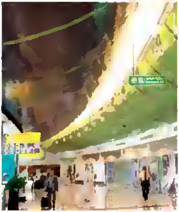
**LOCAL CARRIERS:** The UAE is home to two major airlines: Emirates, based in Dubai, and Etihad Airways in Abu Dhabi. According to figures from Etihad, which was founded in 2003, it carried 8.3m passengers in 2011, up 17% on 2010. During the January-August 2012 period, passenger numbers were up 28% year-on-year (y-o-y), from 5.28m to 6.76m, while cargo was up 20% y-o-y, from 198,246 tonnes in January-August 2011 to 236,918 tonnes during the same period in 2012. Seat factor increased from 75.1% to 78.3% over the same period. Total revenue in 2011 jumped 36% to $4.1bn, up from $2.98bn in 2010. Earnings before interest, tax, depreciation, amortisation and rentals stood at $648m in 2011, and the company booked a profit for the first time, of some $14m. The success has carried over into 2012 with encouraging first-half revenues of $1.72bn, up 28% y-o-y.

As of August 2012, the carrier served just under 90 destinations and has plans to commence new routes to Washington in January 2013 and to São Paolo in Brazil in June 2013. Further, Etihad has taken stakes in several other carriers. To date, these include a 29% stake in German airline Air Berlin in December 2011, a 40% stake in Air Seychelles (the islands' national carrier) in January 2012, 3% in Ireland's national airline Aer Lingus and 4.99% in Virgin Australia. Etihad acquired in May and June 2012, respectively.

Such deals have served to increase Etihad's catchment area and attractiveness to customers, and along with Abu Dhabi's convenient location have played a part in helping the airline capture a large slice of the transit business between Europe/North America and South-east Asia. Currently around half of Etihad's passengers transit through Abu Dhabi en route to other destinations, while the remainder are visiting the emirate as their main destination. Cargo accounts for an important share of its business as well – about 25%, according to the company.

In addition to Etihad, there are a number of private aviation firms active in the emirate. These include Abu Dhabi Aviation (ADA), founded in 1976, originally to provide services to the offshore oil industry. The group, in which the Abu Dhabi government retains a 30% stake, has since diversified into providing helicopter services across the world. It has operations across five continents, in countries from Yemen to Spain to Papua New Guinea, and offers services such as offshore operations support, crop spraying and fire fighting. ADA owns 95% of Maximus Air, a cargo group, and 50% of Royal Jet, a VIP aviation service. Other local private aviation companies to mention include Falcon Aviation Services and Al Jaber.

**POLICY:** In general, the UAE's aviation policy is to seek open skies agreements with all other players. To date,



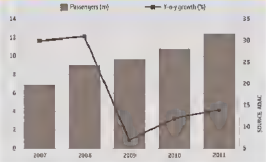
Passenger numbers at Abu Dhabi International rose to 12.4m in 2011

Etihad has been able to secure enough landing rights to ensure organic growth, while the UAE's aviation regime is considered fair, offering landing slots on a commercial basis. Abu Dhabi's proximity to Asia, which looks set to be the driver of aviation growth over the coming decade, means Etihad seems well situated to benefit if it plays its cards right. While competition within the industry generally, and for the transit passenger business in particular, is intense, the current rate of expansion is such that for now there remains plenty of room for all players.

**ABU DHABI INTERNATIONAL:** Etihad's growth has in turn led to a rise in passenger growth at Abu Dhabi International Airport (ADIA), part of the ADAC stable and Etihad's home airport. In 2011, it saw 12.4m passengers, compared to 10.8m in 2010, an increase of 12%. As of May 2012, the airport served over 50 airlines in addition to Etihad and over 90 destinations in about 50 countries. To cope with the continuous increase in passenger numbers, ADAC has commissioned a new terminal complex. Total investment in the project is estimated at approximately $6.8bn.

More than 50 airlines currently operate out of Abu Dhabi International Airport. A new terminal has been commissioned to meet growing demand and higher passenger numbers.

Total passenger traffic at ADIA, 2007-11



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مرافئ أبوظبي
ABU DHABI TERMINALS

although this figure does include some work that has already been carried out. In June 2012, ADAC awarded the Dh10.8bn ($2.9bn) contract for the construction of the 700,000-sq-metre Midfield Terminal Building (MTB) to a consortium of Consolidated Contractors Company, TAV and Arabtec.

Upon completion in 2017, the MTB will add capacity for 30m passengers a year, bringing total capacity at the airport to 47m passengers a year and cementing its status as a global transit hub (see analysis). Until the MTB is completed, ADAC has undertaken a number of remedial measures to ensure the airport copes successfully with the growth in passenger numbers. These include opening Terminal 3, a dedicated facility for Etihad in 2009, refurbishing Terminal 1, which was completed in 2011; and adding new parking capacity. ADAC plans to set up a free zone at ADIA, as well as at the airports in Al Ain and Al Bateen. These zones will mostly be geared to logistics groups, but ADAC is still finalising the precise terms and incentives. The idea is to offer a one-stop shop, which will help keep the number of procedures to a minimum, and provide facilities under one roof.

**AL AIN:** Al Ain International Airport, based in the eastern oasis city of the same name, is primarily a regional airport, although it does have some international connections to enable labourers to travel in and out of the UAE. It has the capacity to handle 1000 passengers an hour at peak times, and is currently served by seven airlines. However, the airport is set for massive expansion as Al Ain has been designated as the site for the development of an aviation and aerospace cluster, which has been branded as Nibras, as part of Economic Vision 2030.

Mubadala Aerospace, a division of the government-owned investment company, is currently developing the cluster in collaboration with several different international partners, such as Boeing, Airbus and Lockheed Martin. The aerospace park will house equipment for aircraft assembly and manufacture, maintenance, repair and overhaul facilities, and flight schools. Already, Al Ain is home to two flight schools, Horizon Flight Academy, which trains aircraft pilots, and Al Ain International Aviation Academy, which trains engineers in aircraft maintenance, as well as Strata, a Mubadala venture which has been making composite parts for aircraft since 2010 in cooperation with Boeing, Airbus and the Austro-Chinese group, FACC.

**OTHER AIRPORTS:** Other ADAC facilities include Al Bateen Executive Airport and the Sir Bani Yas and Delma airports. Al Bateen remains the only dedicated business aviation facility in the region.

Once the main airport for Abu Dhabi before Abu Dhabi International Airport opened in 1982, it spent some time as a military airstrip until ADAC took over the site in 2008 and reopened it as a hub for business aviation with $54m of investment. Traffic has continued to grow since; during the first four months of 2012, traffic was up 26% y-o-y, registering a total of 3391 aircraft movements over the period, according to a statement from the airport. Sir Bani Yas is a nature


A growing manufacturing industry demands better export facilities

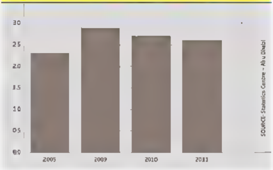
reserve to which tourist flights are available, while the Abu Dhabi government operates link flights to the 5000 residents of Delma Island, just off the mainland.

**MARITIME:** Growth is also behind the expansion of the ports network. While ADPC owns all the ports in the emirate, operations are managed by Abu Dhabi Terminals (ADT), also a quasi-state-owned firm. Currently, the main port in Abu Dhabi is Mina Zayed, on the main island of Abu Dhabi City.

The port's position, increasingly hemmed in as it now is by the rapidly growing urban area, has meant there is limited room for expansion, and the port has become a significant contributor to worsening traffic congestion in the city. Moreover, the development of several large manufacturing industries in the emirate has resulted in the demand for facilities geared towards exports, while Mina Zayed is almost completely an import-oriented terminal. According to Tony Douglas, the CEO of ADPC, "The success of the emirate's diversification policy, ongoing investments in the oil and gas sector, and development of export-oriented industries have all contributed to increased port activity."

During the first four months of 2012, airport traffic rose by 26% year-on-year compared to the same period in 2011. Expanding and improving facilities at other airports, such as Al Ain, is being prioritised.

Transport & storage – contribution to GDP, 2005-11 (%)



Khalifa Port is being developed in tandem with Kizad industrial zone

The ambitious 1200-km Etihad Rail project aims to revolutionise transport links between Abu Dhabi and the rest of the UAE, as well as with its neighbours in the region

The solution is a new port, known as Khalifa Port (KP), at Taweelah, north-east of Abu Dhabi City off the main Abu Dhabi-Dubai motorway (see analysis). KP is being developed in tandem with a dedicated industrial zone, Kizad, creating an integrated port and industrial complex which enjoys free-zone status.

KP became operational in September 2012, with an initial capacity of 2.5m twenty-foot equivalent units (TEUs), but the ability to scale that up to 5m TEUs within a lead time of one year. Initial general cargo capacity is 15m tonnes a year. The container section at KP will be the first automated terminal in the Middle East, allowing for greater efficiency and transparency, and will be operated by ADT, while the port will also feature bulk and liquid terminals, as well as wharves dedicated to particular industries located in Kizad.

While Mina Zayed is a feeder port and currently only capable of handling vessels up to Panamax size (80,000 tonnes), KP will be able to house the biggest vessels currently afloat, with a dredge of 16 metres. Over the longer term, it has the potential capacity to become a mainline port, as opposed to a feeder facility, attracting much larger vessels and reducing lead times and freight costs – measures that will ultimately contribute to further cementing the competitive advantage for firms based at Kizad. "The emirate has invested a lot of money into its ports and maritime capacity," Claus Breitenbauch, the CEO of ESHIPS, an Abu Dhabi-based dry bulk and tanker shipping operator, told OBG. "Both the hard and soft transportation infrastructure is solid and continues to expand," he added.

In 2011 Mina Zayed handled some 720,000 TEUs, an increase of around 40% y-o-y, and around 5m tonnes of general cargo, up about 15% y-o-y. Once KP is up and running, Mina Zayed's container business will be transferred to the new port, but the general and bulk terminals are due to remain in operation for some time after the new port opens. The old container terminal is likely to be redeveloped as some sort of tourist facility, although plans had yet to be announced at the time of writing. ADT also operates a port facility at Musaffah, to serve the adjacent industrial area of the same name. There are also a number of other small ports and fishing harbours that are operated by the government on a public service basis.

**RAIL PROJECTS:** KP is expected to be one of the ports in the UAE to benefit from a rail connection, with the 1200-km Etihad Rail (known until March 2011 as Union Railway) due to link the country together by 2018. Over the longer term this will also join up with rail projects in neighbouring Saudi Arabia and Oman, creating a pan-GCC rail network (see analysis), with the completion date for this wider network set for 2018. Across the GCC states a total of around $100bn of investment in railway projects is currently planned.

In the past, the widespread availability of cheap oil as well as technical difficulties associated with laying tracks in the desert resulted in the expansion of roads across the Gulf at the expense of railways. The fact that the region's main commodity export, hydrocarbons, is largely transported by pipeline further reduced the appeal of rail. As a result, until the construction of the Dubai metro, the region's only railway was a line between Dammam and Riyadh.

The equation has changed, however, and a number of factors are now supporting the expansion of rail in the UAE – and indeed the wider region. These include increasing congestion on local roads, growing environmental awareness among the population, a slow but steady shift in the type of commodities exported and practical financial considerations.

Although the road system in the UAE is of high quality, continual population growth has meant that it is under ever increasing pressure. At same time, greater environmental awareness means there is public demand to reduce emissions. Given that a single train can remove up to 300 lorries from the road, and reduce the $CO_2$ emissions by 70-80%, a shift to rail for bulk freight makes economic and environmental sense. Adding passenger services will also help to

**Fuel consumption & licensed motor vehicles, 2009-11**

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Fuel consumption indicators | | | |
| Pump price for diesel (Dh per litre) | 1.8 | 2.1 | 2.4 |
| Pump price for petrol (Dh per litre)* | 1.3 | 1.5 | 1.6 |
| Passenger cars (per 1000 people) | 332 | 339 | 333 |
| Vehicles (per 1000 people) | 370 | 370 | 370 |
| Motor vehicles licensed by region | | | |
| Abu Dhabi City | 471,502 | 521,270 | 554,156 |
| Al Ain | 180,032 | 194,821 | 201,687 |
| Al Gharbia | 23,492 | 26,955 | 29,113 |
| Total | 675,026 | 743,049 | 785,075 |
| of which: | | | |
| Motorcycles | 5141 | 6176 | 7001 |
| Light vehicles | 552,970 | 652,017 | 687,901 |
| Bus (light & heavy) | 13,988 | 15,220 | 17,380 |
| Trucks (light & heavy) | 37,545 | 42,115 | 43,875 |
| Heavy mechanical equipment | 25,422 | 27,521 | 28,913 |

SOURCE: Statistics Centre – Abu Dhabi, Ministry of Interior

*Pump price of E-Plus petrol

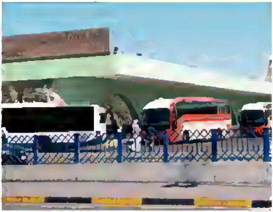
improve public transport, which mostly relies on buses at present, reduce traffic on roads and facilitate efforts to knit regional economies closer together.

State-led efforts to industrialise and keep more of the value added from hydrocarbons at home also mean that oil by-products and other bulk goods will account for a growing share of exports, and these are likely to benefit from the reduced cost of moving freight by rail. This is not the only financial incentive to shift to rail, however: sustained high prices for oil in the global market mean it makes more sense to sell crude internationally than consume it at home.

**LINKING IT ALL UP:** The estimated total investment in the Etihad Rail project is in the region of Dh40bn ($10.9bn), with construction due to begin in early 2012. The first stage will run from near Liwa in the Al Gharbia region to Ruwais, site of a major petrochemicals complex, and from there stretches will be added linking Abu Dhabi to Dubai, then run up the coast to Ras Al Khaimah. A spur will run from Abu Dhabi to Oman from the Al Ain line. Initially, the railway will concentrate on freight traffic, but passenger services between the UAE's two biggest cities of Abu Dhabi and Dubai and the wider region as well are planned. Alaa Saoudi, country manager for Aramex in Abu Dhabi, told OBG, "The upgraded infrastructure within the emirate, including the new rail network, will play a significant role in reducing road congestion. This will also reinvigorate the transport sector as a whole."

**PUBLIC TRANSPORT:** In addition to Etihad Rail, Abu Dhabi plans to develop a comprehensive public transport network as part of Plan Abu Dhabi 2030. In part this is because liveability is one of the hallmarks of the type of city that Abu Dhabi aspires to be, but more importantly, proper public transport also allows cities to become more sustainable in the long run.

Given the projected increase in population, Abu Dhabi has little choice but to develop more buildings, although installing public transport in tandem with this will help to reduce the environmental impact. Since 2008, the DoT has operated a bus network in Abu Dhabi City which is undergoing continuous expansion. The DoT plans to have up to 1300 buses running on 150 local and intercity routes. One feature of the network that stands out is that the DoT plans to install air-conditioning (a must during the Abu Dhabi summer) in all 550 bus shelters. It also operates a bus system in Al Ain. In the longer term, Plan Abu Dhabi 2030 envisages the construction of a metro and tram system in Abu Dhabi alongside the bus network, also supplemented by ferries and water taxis, although at the time of writing no deadline or tenders had been set for these developments.



There are extensive plans to upgrade the public transport network as part of Economic Vision 2030

The Department of Transport is aiming to have 1300 buses operative on 150 local and intercity routes. Several tunnels and bridges will also be built, in addition to a proposed motorway between Abu Dhabi and Dubai.

**ON THE ROAD:** The pace of economic and population growth in Abu Dhabi means that building new roads is unavoidable if the city is to avoid gridlock. As part of urban development plans, numerous tunnels and bridges are planned to provide more connections between Abu Dhabi island and the mainland, as well as offshore islands such as Al Maryah and Reem, where new commercial districts are being developed. Several sections of the Dh5bn ($1.4bn) Salam Street tunnel, designed to cut traffic congestion in Abu Dhabi's central business district, opened in 2011 and others are due to become open soon.

In February 2012, local press reported that the DoT had invited bids for a new Dh2bn ($544.6m) motorway between Abu Dhabi and Dubai, to complement the existing E11 motorway. The E311 will stretch for 62 km, and will improve Kizad's connectivity as well as that of outer parts of Abu Dhabi and Dubai. Construction is planned to take place through two tenders, one for 34 km and one for 28 km, and is due to be completed by the end of 2014.

**OUTLOOK:** Abu Dhabi continues to invest heavily in the transport sector, which is set to become a significant growth driver in its own right over the medium to long term, and all modes are seeing improvement. Public transport is due to become increasingly prominent, although the car will undoubtedly remain the primary means of getting around. Aviation is expanding rapidly and Abu Dhabi may well be able to carve out a role as one of the major east-west transit hubs, while the opening of KP is likely to have a major effect on maritime transport, with the emirate becoming an ever more popular destination to visit in its own right.

**Air cargo loaded by destination, 2008-11 (tonnes)**

| | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| GCC | 35,959 | 33,771 | 30,920 | 34,192 |
| Other Arab | 13,303 | 15,491 | 20,205 | 16,291 |
| Asia (non-Arab) | 47,205 | 33,004 | 43,383 | 60,959 |
| Europe | 53,420 | 59,344 | 79,175 | 80,576 |
| North America | 4826 | 4762 | 6786 | 5774 |
| South America | 2 | 0 | 118 | 225 |
| Africa (non-Arab) | 8835 | 11,477 | 19,098 | 18,517 |
| Australia | 4296 | 8758 | 10,448 | 10,478 |
| Others | 1161 | 0 | 0 | 0 |
| Total | 158,057 | 174,608 | 210,144 | 227,016 |

SOURCE: Abu Dhabi Airports Company


Abdulla Rashed Khalaf Al Otaiba, Chairman, DoT

# Laying the foundations

## OBG talks to Abdulla Rashed Khalaf Al Otaiba, Chairman, Department of Transport (DoT)

**Did the global financial crisis have an effect on the DoT's Surface Transport Master Plan (STMP)?**

**AL OTAIBA:** The crisis started to affect development in Abu Dhabi in 2009 with a scaling back of residential, retail and commercial development proposals, in light of falling market confidence and revised demand forecasts. With an environment more conducive for growth now emerging, the DoT has received government approval to move from feasibility studies to preliminary engineering for the metro and light rail transit projects. The next stage will be final design and construction. The plans for public transport include the metro, the light rail transit service, high speed regional train, an improved bus system, demand management measures and road and streetscape improvements.

The integrated public transport network will serve as a flexible tool that can be phased according to growth. Conscientious and incremental implementation can improve mobility, mitigate congestion and foster sustainable growth. The global crisis highlighted a need for economic diversification and the development of non-oil sectors to fully achieve sustainable economic growth. Realising the vital role that the freight sector plays in achieving this goal, the government of Abu Dhabi has focused its efforts on improving the overall performance of the sector.

**Can the construction of transport infrastructure in rural areas help facilitate industrial development?**

**AL OTAIBA:** A major effort is being made to stimulate the economy of Al Gharbia and provide employment for the local population. This includes developing industry based around the downstream processing of oil and gas as well as diversifying the economy to increase the tourism, manufacturing and commercial sectors. The development of several ports will open the region up and promote economic development by reducing shipping costs and better connecting businesses with their consumers. With this improved access, the pace of economic development will be greatly enhanced.

**How will multimodal transport help Khalifa Port and the Kizad industrial zone?**

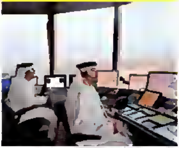
**AL OTAIBA:** Kizad will foster the growth of a series of new industrial sectors, with imports and re-exports a distinguishing feature. The new port's container and bulk-shipping services will offer efficient multimodal services. Landside high-quality road access will facilitate intra- and inter-emirate transport. In step with the phased development plans of Kizad, the link to the Etihad Rail network will bring additional multimodal options into play. The rail network will serve international containers and other freight movements as Etihad Rail links with the planned wider GCC rail network.

**What steps are being taken to enhance the soft infrastructure for land and sea ports?**

**AL OTAIBA:** Abu Dhabi Ports Company has worked closely with its stakeholders in the design of Khalifa Port. Container operations are largely automated, resulting in maximum efficiency and minimised turnaround time. Shippers will therefore operate with more efficacy than those in competitor ports. The significant investment in state-of-the-art freight infrastructure in Abu Dhabi's ports will facilitate economic growth in the coming years as industrial diversification gathers pace.

**Is there a danger of regional overcapacity in ports and airports, given the economic environment?**

**AL OTAIBA:** With the opening of Khalifa Port, sea port capacity will be well beyond immediate demand. If it had not been opened, or had been developed to a smaller scale, the emirate would have been in the much worse position of being short on capacity. Overcapacity during a period of economic recovery is not necessarily a problem. This will put the emirate in a position to capture additional demand as the global economy continues to improve. While other ports in the region are at or near capacity and thus unable to attract new business, Abu Dhabi's infrastructure will be ready and able to provide superior efficiency and connectivity.



New routes will help to build connections with destinations worldwide

# Eye on aviation

## Carriers and airport operators are investing in infrastructure, while efforts to establish a local aerospace industry proceed apace

A big part of the emirate's economic strategy is based around aviation. Building up good air connections is key to its bid to position itself as a regional business centre, attract growing numbers of tourists and, more generally, to enhance its image abroad.

**ON GROWTH PATH:** In 2011, according to figures from Statistics Centre – Abu Dhabi (SCAD), transport and storage accounted for 2.6% of GDP. Although Abu Dhabi has five airports, the largest and most important by far is Abu Dhabi International Airport (ADIA), run by Abu Dhabi Airports Company (ADAC), a 100% government-owned firm.

As of May 2012, ADIA served more than 90 destinations in 50 countries. In 2011, the airport recorded a total of 12.4m passengers, a 12% increase on the 10.8m registered in 2010. According to figures from ADAC, passenger numbers at the facility grew at a compound annual growth rate (CAGR) of 18.5% between 2006 and 2011, and the company forecasts a CAGR of 7.5% up to 2020.

In fact, data released by ADAC indicated that growth in both passenger numbers and cargo traffic at ADIA for the first eight months of 2012 exceeded that of Dubai International Airport. As noted by James Bennett, the CEO of ADAC, the airport has had continued success in attracting additional operators. Indeed, a total of six new airlines commenced services to the airport in 2012, including RAK Airways, Alitalia and Rotana Jet.

New airlines and more routes ultimately provide an opportunity for growth in the emirate's tourism sector and overall economy, ADAC's Bennett said. "The annual economic impact in tourism alone of an additional daily long-haul service into Abu Dhabi is estimated at approximately Dh100m ($27.22m)."

However, the main source of aviation growth has been Etihad Airways. According to company figures, in 2011 the airline handled 8.3m passengers, up 17% on 2010, while revenues were $4.1bn, up 36% on $2.98bn in 2010. In 2011, the company booked a profit of $14m, going into the black for the first time. As of May 2012, it served 87 destinations, operating 187 flights a day. New routes to Washington and Sao Paolo in Brazil were due to open in January and June 2013, respectively, with the latter marking Etihad's first foray into the South American market. Founded in 2003, the carrier is constituted as a public limited company with the Abu Dhabi government as the sole shareholder.

**REGIONAL TREND:** Part of the reason Abu Dhabi has been witnessing strong growth is because of expansion in the broader regional aviation market. The Middle East – and the Gulf states in particular – has weathered the global recession of the past few years better than countries in the West, and buoyant intra-regional demand linked to the growing markets of Asia has contributed to growth in Gulf aviation. At the same time, ADAC figures show that the Gulf was a major contributor to growth in world demand, with revenue passenger kilometres increasing by 19.7%, compared to a worldwide rate of 8.2%, and available seat kilometres by 13.1%, compared to a global average of 6.6%. Passenger numbers are essentially outstripping airlines' capacity across the entire region.

**Aviation indicators, 2011**

| | Abu Dhabi Int'l Airport | Al Ain Int'l Airport* |
|---|---|---|
| **Passengers** | | |
| Arrivals | 6,175,221 | 35,182 |
| Departures | 6,063,523 | 37,555 |
| Transit | 290,674 | 14,872 |
| **Freight (tonnes)** | | |
| In | 254,560 | 104 |
| Out | 226,981 | 393 |
| **Mail (tonnes)** | | |
| In | 2158 | 0 |
| Out | 3241 | 0 |
| **Aircraft movements** | 142,430 | 2753 |

SOURCE: Abu Dhabi Airports Company

*Includes Al Bateen Executive Airport

The UAE is set to invest $19bn in new aviation infrastructure, according to the Abu Dhabi Airports Company. In May 2012, Abu Dhabi International Airport served more than 90 destinations in 50 countries.

The construction of a new terminal building at Abu Dhabi International Airport, due for completion by 2017, will boost annual passenger capacity to 47m

With capacity expanding rapidly at ADIA, Abu Dhabi may well be able to carve out a role as a major east-west transit centre. Moreover, the addition of new airlines and routes will likely bring more visitors to the emirate, which could in turn boost its tourism sector and the economy more generally.

**CAPACITY UPGRADE:** To avoid a potential supply crunch, both carriers and airport operators are having to invest in new capacity. According to numbers from ADAC, the UAE as a whole is set to spend $19bn on new aviation infrastructure, while the country's airlines have $118bn in new aircraft orders over the 2012-20 period. Etihad itself commissioned up to 205 aircraft at the 2008 Farnborough Airshow, of which 100 were firm orders, 55 were options (which guarantee the price of the aircraft and delivery date) and 50 were purchase rights (guaranteeing the price, but not the delivery date). Of the firm orders, these included 10 Airbus A380s, 41 Boeing 787-9 Dreamliners and four freighters.

**INVESTING IN INFRASTRUCTURE:** For its part, since its creation in 2006, ADAC has had to invest constantly to keep pace with the growth at ADIA. Terminal 3, which acts as Etihad's hub, was opened in 2009, while the refurbishment of the old Terminal 1 was completed in 2011, making for a more pleasant passenger experience which led to the airport winning the 2012 award for "Best Airport in the Middle East" at that year's Skytrax awards. In the same year, it was certified as a four-star airport, the first in the Middle East to receive such an award.

However, growth projections have been such that in 2010, ADAC decided to build a new terminal at ADIA, known as the Midfield Terminal Building (MTB). Upon completion in 2017, the MTB will accommodate up to 65 aircraft and handle up to 8500 passengers per hour, an added capacity of 30m passengers a year, bringing total annual capacity at the airport to 47m passengers. Taking completed work into account, total investment in the development plans and projects to increase airport capacity is around $6.8bn. In June 2012, ADAC awarded a consortium of Athens-based Consolidated Contractors Company, Turkey's TAV and local contracting group Arabtec the contract to build the 700,000-sq-metre MTB, at a price of Dh10.8bn ($2.9bn).

Until the MTB is built, however, ADAC has undertaken a number of other measures in recent years to ensure that the airport is able to handle the growth in passenger numbers. These include opening Terminal 3, a dedicated facility for Etihad, in 2009; refurbishing Terminal 1, which was completed in 2011; and adding new parking facilities.

**COMPETITION:** The new capacity comes in response to growing passenger demand, but part of the rationale behind it is to help maintain Abu Dhabi's competitive edge. Although the regional market has been growing steadily, competition remains intense

This carries over to the regional airlines as well, where margins are tight, as is the case worldwide. In addition to Etihad, two other major Gulf carriers, Qatar Airways and Emirates, are competing for the same east-west transit business, and on the face of it they have very similar offerings and hubs that are very close together. While this is not necessarily a problem in itself – after all, several major air hubs in Europe, such as Amsterdam and Frankfurt, are in fairly close proximity – this factor does enhance competition. Moreover, the UAE's aviation industry is run on strictly commercial lines, and does not benefit from state subsidies. For the moment, however, growth in the industry is sufficient to ensure that all carriers are continuing to expand their operations.

**BUILDING A LOCAL INDUSTRY:** The expansion of the regional aviation market has led many carriers to rapidly expand their fleets. A common practice in international aerospace contracts is to offset part of the value of a contract by performing some of the work in the buyer's home country. The scale of recent Etihad purchases, combined with high levels of federal defence procurement, has led a number of international aerospace groups to establish partnerships in Abu Dhabi, laying the foundations for an indigenous aerospace industry to complement the existing aviation industry (see Defence and Aerospace chapter). A number of these have located in Al Ain, which according to plans will be developed as the centre of an aerospace cluster. Already, several firms have set up maintenance, repair and overhaul facilities locally, as well as assembly and manufacturing services, such as Strata, a manufacturer of composite material for aeroplanes. In the shorter term, demand for pilots in the region is strong and two training institutes, Horizon Flight Academy in Al Ain and Al Ain International Aviation Academy, train pilots and maintenance personnel, respectively.

In addition to Etihad and other large international carriers, the Gulf region is also home to a number of low-cost airlines, such as Bahrain Air, Air Arabia and Jazeera Airways, many of which serve Abu Dhabi but none of which are based there. While Air Arabia has taken advantage of Sharjah International Airport's proximity to Dubai to turn it into its main hub, Al Ain International Airport is unlikely to position itself as a budget airport. The requirements of the developing aerospace industry and flight schools mean passenger capacity at the airport is constrained, although its location, just over an hour's drive from Abu Dhabi and Dubai, means there is potential to develop into a cargo and logistics centre.

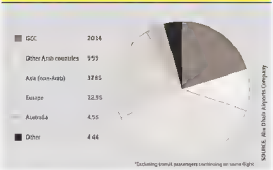
Rotana Jet, the first domestic airline of the UAE, has made considerable inroads into the aviation industry following its establishment in late 2010. The budget carrier recently launched routes from Abu Dhabi City to a number of UAE destinations including Fujairah, Sharjah and Ras Al Khaimah, respectively. Plans are also in the pipeline to incorporate Al Ain into this emerging picture. There is potential to connect Abu Dhabi City with Dubai, although plans are somewhat premature at the time of writing. Rotana Jet's flights connect with international ones to ensure passengers transfer smoothly to long-haul destinations. Indeed, the airline is predominantly targeting leisure and business travellers, although it is not affiliated with its namesake hotel brand.

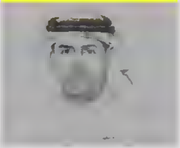

The recent upturn in private aviation is adding drive to the industry

With increasing aviation activity across the emirate there has been a strong demand for skilled professionals including pilots and maintenance personnel, among others.

**PRIVATE AVIATION:** One area of air travel which is flourishing is private aviation, with Al Bateen Executive Airport, part of the ADAC family, recording a 26% growth in aircraft movements year-on-year over the first four months of 2012. A number of private aviation firms operate in Abu Dhabi, including Royal Jet, a subsidiary of Abu Dhabi Aviation (ADA), one of the largest commercial helicopter firms in the region, in addition to Falcon Aviation Services and XOJet. Proximity to the booming Saudi market, combined with robust local demand, means prospects for this segment are strong. "Private aviation is a good indicator of economic health," said Nadhi Al Hammadi, the chairman of ADA. "We have seen an increase in business over the last year, so this is a positive reflection of where the market is headed."

Air passenger arrivals by region of embarkation, 2011*





Ali Majed Al Mansoori, Chairman, ADAC

# Freeing up the skies

## OBG talks to Ali Majed Al Mansoori, Chairman, Abu Dhabi Airports Company (ADAC)

**What steps are being taken to improve passenger and cargo transportation at airport facilities?**

**AL MANSOORI:** ADAC operates the emirate's five airports. Its role is to deliver aviation infrastructure and services that cater to the needs of the capital, the nation and the region. To this end, ADAC is spearheading capacity expansion plans for Abu Dhabi International Airport, which catered to 12.4m passengers in 2011 and an estimated 14m in 2012, through the development of the new Midfield Terminal Complex, which will cater for 30m passengers per year on completion in 2017. ADAC is also developing infrastructure at the other airports in Abu Dhabi and Al Ain. Capacity increases at the existing terminals are also planned to handle growing volumes of transfer passengers, prior to the opening of the new terminal. The programme includes development of an arrivals hall, bus gates, security screening facilities and additional A380-capacity gates and stands. Work will be also be carried out at the 700,000-sq-metre Midfield Terminal Building to develop East Midfield, a 200-ha support area that will have cargo-handling facilities, in-flight catering, ground handling and other ancillary support for the growth of the airport. As an airport with significant land reserves and free trade zone status, ADAC is also working with private investors to develop complementary commercial activities. Current projects include a new hotel linked to Terminal 3, a retail link, and the T3 business park.

**How will the creation of the Abu Dhabi Airport Free Zone (ADAFZ) help to establish the emirate as a regional business centre for foreign investment?**

**AL MANSOORI:** The ADAC Free Zone initiative will improve business and attract global firms to ADAFZ. The zone comprises business, logistics and light industrial parks that are operated by ADAC as one-stop service centres. These parks have customised products and services that will attract industry clusters in aviation, aerospace, logistics, manufacturing, technology, IT, marketing, consultancy, knowledge development, service providers and regional headquarters of global industries. This ultimately transforms the location into an "Aerotropolis", attracting foreign direct investment (FDI) to the country in line with Economic Vision 2030. Airports from across the world have developed extensive airport city and free zone programmes that attract FDI and deliver billions in trade turnover, thus boosting airports' non-aeronautical revenues, as well as significantly contributing to the local economies. Similarly the creation of ADAFZ was part of an initiative launched by ADAC, aiming to attract and support private sector involvement. Firms will use the free zone as their base from which to access and service the global markets.

**How will stakeholders manage future growth?**

**AL MANSOORI:** ADAC has a working relationship with stakeholders and government entities, ensuring that projects are strategically planned, in line with the Abu Dhabi long-term plan, serving Economic Vision 2030. ADAC maintains open communication lines with various government organisations to ensure compatibility and transparency in all relevant activities, and to capitalise on relevant initiatives to deliver sustainable growth for the aviation sector in the emirate.

**What would a GCC-wide "open sky" policy mean for the aviation sector in Abu Dhabi?**

**AL MANSOORI:** Open skies is an international policy concept that calls for liberalisation of rules and regulations within the international aviation industry – especially commercial aviation – to create a free-market environment for airlines. For it to be effective, all GCC countries must agree to an Air Transport Agreement; failure to reach to a unified agreement may disappoint major airlines, as it may favour countries that have only one flag carrier. Most GCC countries have announced liberalisations to their air systems, however, these countries are still restrictive and protective of their national carriers. We believe that the aviation system in the GCC is moving toward a more liberalised open sky policy.

Several distant oil export destinations require transport by sea

# An integrated approach

## The new port and industrial complex is designed to aid diversification

One of the largest projects currently under way in Abu Dhabi concerns maritime transport. Khalifa Port (KP), a new facility to replace the emirate's current main port of Mina Zayed, opened in September 2012, together with a new integrated industrial complex known as Kizad. These facilities are aimed at revolutionising Abu Dhabi's transport and industrial system upon completion in 2030. The zone will cover 417 sq km and is projected to account for up to 15% of the emirate's non-oil GDP, as well as providing as many as 100,000 jobs.

**MORE TRAFFIC:** The maritime segment still accounts for a big part of total transport, largely in goods. Although no official figures for the economic contribution of sea transport (as opposed to transport overall) were available at the time of writing, figures from the Statistics Centre – Abu Dhabi (SCAD) show that six out of the emirate's top 10 non-oil export destinations were non-GCC countries, with exports to two of the top three in 2011, Canada and Brazil, highly likely to go by sea.

However, the makeup of Abu Dhabi's maritime traffic has been changing rapidly in recent years. When the existing port of Mina Zayed was built in the 1970s, its primary function was as an import terminal, serving an island city designed with a maximum population of 600,000 in mind. Not only has the population of Abu Dhabi City grown since then to around 900,000, but the emirate has embarked on a series of industrial investments that have generated significant export traffic.

At the same time, continued economic and population growth has led to a rise in demand for imported goods, which has put pressure on the facilities at Mina Zayed. According to Martijn van de Linde, the CEO of Abu Dhabi Terminals (ADT), the new port will help to address this. "Traffic in Mina Zayed is growing significantly year on year. This reinforces the necessity of KP to accommodate long-term organic growth. Operations will be much more efficient and cost-effective at the new facility," Van de Linde told OBG.

Thus, the government has embarked on work to build a new integrated port and industrial complex which will enhance the emirate's competitiveness as well as expand the existing industrial base. KP features new container and bulk terminals built on an artificial island 4.5 km offshore, with Kizad developed on the mainland, at Taweelah, a site roughly equidistant between Abu Dhabi City and the port of Jebel Ali in neighbouring Dubai, currently the biggest port in the Middle East and a leading logistics centre in its own right.

Abu Dhabi Ports Company, a public firm in which the government of Abu Dhabi is the sole shareholder, is building the port and will retain ultimate ownership. ADT is a private joint stock company owned by Abu Dhabi Ports Company, Mubadala and Mubadala Infrastructure Partners; it already operates Mina Zayed and will run the container terminal at KP, which will be the first automated container terminal in the Middle East.

**CAPACITY & INVESTMENT:** While Mina Zayed handled just under 800,000 twenty-foot equivalent units (TEUs) in 2011, according to ADT, KP will have an initial capacity of 2m TEUs when it opens, although the port has been built in such a way that this can be more than doubled to 5m TEUs within one year and will ultimately reach 15m TEUs by 2030. It will have further capacity for 15m tonnes of general cargo, as well as bulk and liquid terminals, while large factories at Kizad will benefit from their own terminals at the port.

Figures for the total investment going into KP/Kizad vary, with some infrastructure investment on other departments' books (for instance, Abu Dhabi Water and Electricity Authority is installing a 2000-MW power plant on the site, but it will be used for the Abu Dhabi power grid generally, rather than just KP/Kizad), with estimates ranging from Dh14bn ($3.8bn) to Dh26bn ($7.1bn). Civil works at Kizad are ongoing, but anchor tenants such as Emirates Aluminium, also known as EMAL, have been operating at the site since 2009. In addition to its clustering approach, Kizad offers a number of incentives to investors, including low land rents, utility costs and, in some parts of the complex, free zone status (which in Abu Dhabi enables businesses to

As the population of Abu Dhabi City has risen to nearly 1m, there is growing demand for imports that must be transported via sea, often from great distances.

Upgrading maritime links through planned construction of the Khalifa Port will boost Abu Dhabi's commercial image and improve its global competitiveness.

import materials and export goods free of Customs duties, as well as allowing 100% foreign ownership and free repatriation of capital).

**CLUSTERS OF INDUSTRY:** However, the main competitive advantage, for both the port and the industrial zone, is the overall integration of the entire complex. It aims to attract both heavy, basic industries and lighter, downstream industries which contribute to the value chain, arranged around key clusters in aluminium, steel, engineered metal products, chemicals and petrochemicals, pharmaceuticals, food, paper, print and packaging, and logistics. Downstream industries cluster around the basic industries which are significant suppliers of raw material while the proximity of the port allows for the easy importation of raw materials as well as the export of finished products. KP/Kizad integrates with the E11 motorway, providing fast access to Jebel Ali and Abu Dhabi, each 45 km away as well as the Abu Dhabi and Dubai airports, both of which are major air hubs. Additionally, Etihad Rail, which will eventually join up with the wider proposed GCC Railway, will pass through KP/Kizad. Upon completion in 2018, this connection will offer significant freight cost savings to industries based around Kizad, as well as improved access to the wider Gulf market of about 50m people.

**AIMING FOR THE MAINLINE:** KP has been designed to accommodate the largest ships currently used (Mina Zayed is restricted to Panamax class) and the sheer scale of the new port and adjacent industrial complex constitutes both a significant part of its commercial strategy and a source of competitive advantage. The port's size makes it more commercially viable for ships to call on KP as a mainline destination, as opposed to a feeder port such as Mina Zayed. In turn, this makes for shorter lead times and cheaper shipping rates, creating a virtuous circle as industries choose to locate in Kizad due to increased shipping connections and the presence of so many potential industrial customers. Van de Linde told OBG, "The new port will give Abu Dhabi the opportunity to go from a feeder port to a regional hub. The new port, because of its size and capacity, will help ensure that Abu Dhabi becomes a mainline destination. Additionally, the move will decongest the city centre as Mina Zayed traffic will decrease."

**COMPLEMENTARITY:** KP is just 45 km from Jebel Ali, although the two ports are designed to complement each other rather than compete head to head. KP is very much an industrial port whose selling point is the size and variety of the adjacent industrial cluster, while Jebel Ali has cornered the regional market as an entrepôt and trans-shipment centre, and its facilities will also be available to industries based at Kizad. While some trans-shipment business may come to KP as its international connections increase, this is not the port's primary business activity or target market. Rather, the port is intended to strengthen the ongoing diversification of the emirate's industrial base, as well as boost its competitiveness in the world market in the long run.

The creation of new tram and metro lines aims to reduce road traffic

# The road ahead

## Key improvements to public transport looks set to boost growth

The car is king in Abu Dhabi, where petrol is inexpensive and the development of outlying suburban areas has meant that long commutes to the office are not uncommon. But with population growth and continued economic expansion in recent years, the emirate's roadways have come under some pressure, particularly in Abu Dhabi City's central business district during peak travel times. While proposed roadways may alleviate some of the traffic congestion, the emirate's urban planners are also working to develop the nascent public transit system.

**MASTER PLAN:** Transport officials in Abu Dhabi have a clear vision when it comes to public transit, thanks to the Surface Transport Master Plan (STMP). Commissioned in 2008 and unveiled by the emirate's Department of Transport (DoT) in 2009, the STMP realises the conceptual transport strategy outlined in Plan Abu Dhabi 2030 Urban Structure Framework Plan. Developed by the Abu Dhabi Urban Planning Council in 2007, Plan Abu Dhabi articulates a clear direction for the future growth of the UAE capital.

The STMP focuses on building a public transport network that will be able to accommodate an expected rise in population and facilitate economic growth. It foresees significant public investment in road, rail, air and sea links and includes the construction of a metro and light rail transit /tram system, expansion of the bus network, the development of a system of ferries and water taxis, and improvements to roads. The STMP lays out some ambitious targets, including a goal to increase the number of trips on public transport to 33% during peak times by 2030.

While the STMP is still very much the overarching framework for transport development, some parts of the document are being revised to reflect the fact that, in the wake of the global financial crisis, residential, retail and commercial developments in Abu Dhabi have been scaled back. This revision process was on-going as of November 2012, with completion expected within a few months. However, the section of the STMP that details the development of the integrated public transport network (IPTN) has already been updated to conform to the most recent demand forecasts. This revised document, released in March 2012, identifies the current plans for bus, metro, light rail, ferry and regional rail elements of the proposed public transit system.

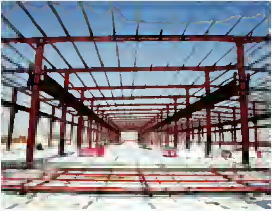
A new comprehensive transport framework envisions the construction of a 17-km metro line by 2020. It will link several different areas of Abu Dhabi City and potentially boost economic growth.

**FIRST PHASE:** According to information provided by the DoT, the new IPTN plan includes expansion of existing elements of public transport – such as the bus network – while also proposing significant new additions to the Abu Dhabi transit landscape, including metro and light rail lines.

With respect to the bus system, which has been in operation since 2008, new bus lanes along Hamdan and Zayed Streets will reduce travel times along two of the busiest transport corridors in Abu Dhabi City. In addition, future lanes along Airport and Muroor Roads will facilitate improvement of the rapidly expanding suburban bus network.

The revised IPTN also calls for one metro line and two tram lines, all three of which are expected to be completed by 2020 at the latest. The 17-km metro line will run from Zayed Sports City to the new Central Station located between Al Maryah Island and Mina Zayed, linking key areas of Abu Dhabi City, including Al Falah, Mohammad Bin Khalifa, Al Jazeera, Mushrif, Rehhan and the Abu Dhabi National Exhibitions Company. Light rail will operate along two routes, a 15-km line from Marina Mall to Reem Island and a 12-km line from Eid Prayer Ground to Saadiyat Island, with each light rail station expected to handle around 1000 commuters. In addition, a 14-km bus rapid transit (BRT) loop route will serve central Abu Dhabi City and Al Maryah Island, as well as Al Khalidiyah, Al Markaziyah and Madinat Zayed.

**DOWN THE LINE:** Looking further ahead, the DoT plans to extend the metro to the Abu Dhabi International Airport and to Mohammed bin Zayed City by 2030. Additional light rail and BRT lines will be



A new rail network will result in trains capable of traveling more than 400 km per hour

Without changes to the transport network, the annual economic cost of time spent in traffic in Abu Dhabi City will potentially rise to Dh2.5bn ($680.5m) by 2015 and as high as Dh5.9bn ($1.61bn) by 2030.

constructed on Abu Dhabi island and along high-demand travel corridors in Mussafah, Mohammed bin Zayed City, the Capital District, Khalifa City, Al Raha Beach, Al Shamkha, North Wathba and Shahama. In addition, express coaches will aim to offer point-to-point non- and limited-stop service with connections to the metro, light rail and BRT. Together with the bus, rail and BRT aspects of the IPTN, by 2030 a ferry network will provide transport between the Tourist Club Area, Al Maryah Island, Al Raha Beach and Yas Island and along the Corniche. The preliminary stage, which is expected to be operational by 2014, will include the connection between Maryah Island, Yas Island and Tourist Club Area.

Finally, a high-speed regional rail network is planned, which would serve to link up metropolitan areas of Abu Dhabi with outlying areas of the emirate, as well as further afield to Dubai and Sharjah. According to the STMP, train stations located in the central business district, the Capital District and at Abu Dhabi International Airport would provide facilities for passengers to connect to metro, light rail and bus services. With trains that can travel up to speeds of 400 km per hour, the regional rail network is expected to be competitive with air travel and significantly faster and more convenient than car travel for journeys between cities.

**ECONOMIC & SOCIAL IMPACT:** Nearly anyone who has sat in a traffic jam can understand the potential cost of traffic congestion, whether measured by opportunity cost, delays or wasted fuel due to increased idling, acceleration and braking. Other economic costs of congestion include an inability to forecast travel duration with much accuracy, which can mean that drivers allocate too much time to travel, reducing the opportunity for other more productive activities. The current situation in Abu Dhabi City is similar and conditions are highly likely to worsen over time without a clear strategy and additional investment in the public transportation network.

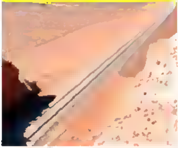
Indeed, according to the DoT, if no changes are made to the existing public transit system, the annual cost of time spent in traffic in Abu Dhabi City will rise to Dh2.5bn ($680.5m) by 2015, reaching Dh5.9bn ($1.61bn) by 2030. But with the development of the proposed network – which is expected to serve 823,000 daily commuters, eliminate 400,000 daily road trips and render 105,000 automobiles redundant by 2030 – some Dh3.8bn ($1.03bn) in travel time costs and 102m hours of travel time per year would be saved, the DoT has calculated. It has also estimated that the new system would eliminate 23,000 accidents each year, saving Dh414m ($112.7m) annually, in addition to countless lives.

Reducing traffic congestion would not only improve the lives of residents, it would also likely make the emirate more attractive to potential investors and tourists. In addition, mass transit is environmentally friendlier than transport by personal car, with the proposed system in Abu Dhabi expected to reduce emissions of carbon monoxide and nitrogen oxide by 22,050 tonnes and 4450 tonnes, respectively. This is an important factor for the government of Abu Dhabi, which is generally quite keen to take into consideration environmental sustainability as part of its urban planning schemes.

**INVESTMENT OPPORTUNITIES:** The development and expansion of the emirate's public transit network could create significant opportunities for contractors specialised in the development of metropolitan transport systems. While construction bids have yet to be tendered for any of these projects, foreign firms have already been active in terms of providing consultancy services during the planning stages.

For example, in 2010 two Spanish firms, engineering giant Sener and consultancy Typsa Group, were commissioned by the government to conduct a feasibility study for the light rail network. They were specifically asked by the DoT to help assess the financial viability of the project and prepare designs for the stations and other technical specifications. A consortium comprising engineering and construction management firm Parsons Brinckerhoff, German national railway Deutsche Bahn International and management support services provider AECOM was chosen to prepare a feasibility study for the metro, which was thereafter completed in September 2011.

Both the metro and light rail projects have now moved beyond the feasibility stage and into the preliminary engineering stage, the DoT has told OBG, which will be followed by final design and construction phases. Moreover, government funding has been secured with the emirate's Executive Committee announcing in January 2012 that provisions have been determined for the metro and light rail systems as part of a larger package of major civil infrastructure projects. The money is clearly available, and the government has demonstrated the willingness to promote the development of a mass transit network, now it just needs to convince the people of Abu Dhabi to reduce their overall everyday vehicle usage.



Over $100bn is being invested in rail projects across GCC countries

# All aboard

## A revolutionary project to strengthen transport links across the GCC

Putting a definitive end to the historic reliance on road vehicles for land transport prevalent in both the UAE and the wider Gulf region, a state-backed firm is currently in the process of building an ambitious national rail network that will significantly expand and improve freight and – in the longer term – passenger transport options across the emirates.

What started as an Abu Dhabi-only initiative has now expanded to the other parts of the country, and the bulk of the network, including the entirety of the first phase, will be located in the emirate. The lines will connect with key ports across the UAE, as well as with railways in neighbouring countries, eventually forming part of a wider regional rail network as other GCC states also invest significantly in developing their rail infrastructure.

**RAIL REVOLUTION:** At the moment, the only operational railway in the UAE is the Dubai metro, which celebrated its third anniversary of operations in September 2012. Indeed, there is currently only one other functioning railway line in the GCC as a whole, namely the Riyadh to Dammam passenger and freight line in Saudi Arabia. Factors that have undermined the attractiveness of rail in both the UAE and wider region include the availability of cheap oil, which has boosted road use, and the technical difficulties involved in building on desert sands. The fact that the main commodities produced in the region have traditionally been hydrocarbons, which are transported primarily by pipeline, has also reduced the urgency of investing in rail freight lines.

However, factors such as worsening traffic problems, and a realisation that at times of sustained high oil prices it makes more sense to sell oil internationally rather than consume it heavily at home have boosted the appeal of rail, as have increasing industrialisation and the growth in importance of oil by-products and other bulk goods. Governments in the region are thus starting to reach into their pockets and spend heavily on rail infrastructure, with around $100bn of investment in railway projects currently planned across the GCC states.

Abu Dhabi and the UAE are no exceptions to the trend and work has begun on a major national rail project being developed by the state-backed Etihad Rail, which was created by federal law in 2009. The project is being built over three phases that, when completed, will comprise 1200 km of railway, at a total investment cost of Dh40bn ($10.89bn). The project began life as an Abu Dhabi-only network, but has since expanded in conception into a national railway system, although eight of the 13 main hubs along the network will be in Abu Dhabi itself.

Rail travel is an unexploited market throughout the UAE and the GCC as a whole. In fact, there are currently no operational railways in Abu Dhabi. Etihad Rail aims to change this.

**PROJECT DETAILS:** The completed network will run from Al Ghweifat on the Saudi border in the west of the country to Ruwais, after which it will split in two, with one line heading south to Liwa and Shah. The main line will continue east, before itself splitting into one line that runs south-east to Al Ain and another that continues north-east towards Fujairah and then Khor Fakkan. The latter line will also have branches running off it to three different locations in and around Abu Dhabi City – namely Abu Dhabi Industrial City, the industrial town of Mussafah and Khalifah Port – as well as to Jebel Ali in Dubai, Sharjah and Port Saqr in Ras Al Khaimah.

The first phase of the project, which will be located entirely in Abu Dhabi, involves construction of a 266-km train line from Ruwais to Habshan and Shah in the south of the emirate. Etihad Rail is building the section in partnership with Abu Dhabi National Oil Company, which will use it to transport granulated sulphur (sulphur is as a by-product from its oil and gas operations in Shah and Habshan) to Ruwais, where it operates a sulphur terminal. Construction of the first phase has already begun and is currently scheduled for completion in 2013.

Etihad Rail awarded the construction of the civil and track works for the phase, worth Dh3.3bn ($898.2m), to a consortium comprising Saipem and


The development of the rail network will create more integrated transport options in the region

Design and engineering challenges in planning and building the railway are being addressed by carrying out thorough research and pilot studies.

Tecnimont of Italy and UAE firm Dodsal Engineering and Construction, in October 2011. In July 2012 the firm issued invitations to bid for tender elements of the 600-km second stage of the project, which will extend the network to Al Ain and the eastern border connecting to neighbouring Oman, and to Ghweifat in the west, linking it to Saudi Arabia, as well as to rail terminals in Abu Dhabi and Dubai.

The individual tenders are respectively for the design and construction of the 190-km-long section running between Liwa and Al Ain and the 137-km-long section between Ghweifat and Ruwais as well as the contract for communications and signalling for the whole of the second phase. The third and final phase of the project will result in the network extended to the Northern Emirates including both Sharjah and Ras Al Khaimah, respectively.

The project is encouraging, and continues to gain momentum. For example, in October 2012 Etihad Rail announced that the line's route between Abu Dhabi and Dubai has been decided, following a meeting between the company and government officials. In late 2012 the company and the Abu Dhabi Urban Planning Council signed a service level agreement for reviewing the allocation of land for facilities such as stations and depots in the emirate.

**SAND CHALLENGE:** As noted above, a key challenge to building rail infrastructure in the region is its desert topography, and in particular problems caused by sand, due to factors such as sand dunes' propensity to slowly move, and issues caused by large sand particles sticking to the tracks.

In order to evaluate and address the difficulties involved, Etihad undertook a pilot study on the issue as well as research in countries that have sought to deal with the same problem, such as China, Mauritania and Saudi Arabia, among others. Measures being taken to address the issue include custom modifications of SD60-ACS locomotives ordered by the firm from US company Electro Motive Diesel, which will have high-tech features such as sand filtration systems and adjustable sand ploughs.

**FREIGHT FOCUS:** The first services to run on the network will be freight only, with a maximum speed of 120 km per hour. Etihad Rail has discussed and reached agreements with a number of important industrial customers regarding key products to be transported by the freight service; these include but are not exclusive to hydrocarbons, cement, metals such as iron and steel, and bulk liquids.

The company initially planned to build a dedicated passenger train service between Abu Dhabi and Dubai; however, it put this on hold in 2011. Nevertheless, Etihad Rail still appears to envisage running passenger services along the main network, with reported plans to build up to 10 passenger stations, at speeds of up to 200 km per hour (the presence of sand limits the maximum achievable speed, ruling out for the moment the construction of a French or Japanese-style high-speed network with speeds of up to 300 km per hour).

**BENEFITS:** The construction of the network will provide the UAE with a number of key benefits, such as reduced traffic and $CO_2$ emissions and faster journeys as well as more efficient transportation of some bulk goods in particular. The railway will further boost the attractiveness of the country's major ports by offering an alternative to road and integrated transport options, with Etihad Rail having already reached an agreement with port operator DP World for the construction of an intermodal rail terminal at Jebel Ali to facilitate the transfer of containers.

The project is also anticipated to boost the UAE's telecommunications network, as Etihad Rail has granted access to the network to local telecoms operators Etisalat and du for use in expanding their infrastructure. The project is also spurring local industry, for example, Indian firm PCM Strescon Overseas Ventures will manufacture sleepers for the network at a specially built factory in the UAE.

The project will ultimately help to strengthen transport and communication links between the Gulf states and aid regional integration; the lines will link the UAE with both of its neighbours, crossing into Saudi Arabia at Al Ghweifat and into Oman at Al Ain, and will eventually form part of a wider GCC rail network running from Kuwait all the way to Oman.

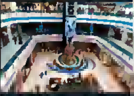
A detailed engineering design for the regional network is due to be completed by the middle of 2014, and regional officials told Reuters in October 2012 that it could enter into service by 2018. In October 2012, Dr Amjad Bangash, senior vice-president at Bechtel Rail, the rail unit of US construction and engineering major Bechtel, told the MENA Rail Projects Conference he believed that the UAE network could eventually become part of an extensive rail line linking Amman, in Jordan to Oman.

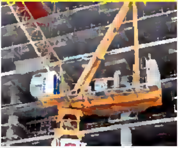
The development of such a network would entail a significant expansion of transport and logistics options available in the region, boosting a wide range of industries and the regional economy as a whole.

# Construction & Real Estate

Public sector infrastructure spending resumes in 2012
Tourism projects under way on Saadiyat and Yas Islands
Extending development to new areas
More residential and office space to come onto market
The number of shopping malls is set to increase
Further warehouse space to open due to demand





An emirate-wide building code has been under development for years

# Swings and roundabouts

## With competition among contractors growing, those with viable projects could find this a good time to build

After a period of rapid growth in 2008 and early 2009 the construction sector has settled into a more moderate pattern in recent years, with contractors primarily wrapping up legacy projects in 2011. However, 2012 began on a positive note, with the government announcing in January that it would resume some previously delayed projects. Nonetheless, with excess capacity in the system competition for contracts has driven down pricing, providing an opportunity for developers. For viable projects, now may be a good time to build, with construction firms willing to bid low to win business.

**ENGINE OF GROWTH:** Although one of the goals of Abu Dhabi Economic Vision 2030, the emirate's long-term economic plan, is to promote the private sector as the main stimulus of growth, at present the government plays a key role in the development of local real estate projects, in part through its holdings in Aldar Properties, the largest real estate developer in Abu Dhabi, and via its smaller stake in Sorouh Real Estate. The state also fully owns the Tourism Development & Investment Company (TDIC) and Mubadala Real Estate & Infrastructure, a business unit of Mubadala Development Company, both of which are mandated to deliver upon the government's vision and subsequently provide considerable amounts of work to contractors.

Market participants have emphasised the high importance of government spending for the health of the local construction sector. As Richard Chammas, the president and COO of Saudi Arabia-based contractor Saudi Oger, said, "The government has to be the engine of growth in Abu Dhabi in order to bring about any kind of change to the present climate. While the private sector is crucial it is not able to fill the role of generate the jobs or investment funds like government- and state owned enterprises, particularly in the construction and real estate sectors."

In January 2012 the Executive Council announced that it had approved a range of projects, including some that had previously been on hold, covering housing, health care and education, in addition to major transport infrastructure developments

For that reason, 2011 was a year of uncertainty for contractors, as the government reassessed priorities and put some projects on hold. These included the development of local branches of the Guggenheim and Louvre Museums, with the TDIC announcing in October 2011 that these projects were being delayed indefinitely, although they have since been relaunched. A reassessment of priorities may well have been a reasonable move by the emirate's government. While Abu Dhabi's fundamentals remained strong the global economic picture was nothing if not uncertain.

The government has sufficient funds to invest in commercial and residential developments if that is its preference, but businesses in the sector – including some state-owned entities – rely at least in part on international capital markets for their financing and the demand for new projects is to a degree, a function of global economic conditions. While an air of uncertainty may have prevailed in 2011, conditions improved in 2012, with the Executive Council announcing in January that it had approved a list of development projects including some that had previously been put on hold (see analysis). The news came as a strong positive announcement, according to Tariq Hatim Sultan, the CEO of Bunya, the company responsible for the planning, execution and management of infrastructure on Reem Island, an area near downtown Abu Dhabi City being developed as a residential and commercial centre. "The economic development package announced by the Abu Dhabi government at the beginning of 2012 is a very positive sign for projects in the UAE," he said.

**TRANSPORT:** The list of projects that emerged from the Executive Council covered a variety of sectors, with a focus on social services such as housing, health care and education. However, it also included approval for several major transport infrastructure projects, such as a new terminal building at Abu Dhabi International Airport, part of a larger $6.8bn expansion plan for the airport. The main construction contract for the terminal which has been valued at $2.9bn, was awarded in June 2012 to a consortium of local firm Arabtec, Turkey's TAV and Athens-based Consolidated Contractors Company. Similarly two major road projects were announced in January, including the development and expansion

of the Al Mafraq-Ghuwaifat Road, which connects Abu Dhabi to Saudi Arabia. The Executive Council also approved the budget for infrastructure development at Khalifa Port. Infrastructure projects like these represent important opportunities for contractors and other construction-related businesses. Bashar Ayyash, the resident manager at Khatib & Alami, an architecture and engineering consulting firm, told OBG, adding that he expects most of the company's work in 2012 to be in connection with public sector infrastructure spending in the transport and utilities sectors.

**OTHER INFRASTRUCTURE:** The Executive Council's announcement also identified a number of investments in housing and community facilities, including a development at North Al Wathba that covers 4178 ha and will eventually have 13,150 residential plots. Many projects were also identified in the health care sector, with the Executive Council approving the building of six hospitals, as well as a medical rehabilitation centre, a dialysis centre, four walk-in clinics, a disease prevention and screening centre and a special-needs centre. Authorities also revealed that 24 new schools proposed by the Abu Dhabi Education Council would be built.

Another development included in the January 2012 announcement was the approval of budgets and opening dates for the museums to be located on Saadiyat Island, which is being developed into a cultural centre by the TDIC. The first of the museums, the Louvre Abu Dhabi is scheduled to open in 2015, followed by the Zayed National Museum in 2016 and the Guggenheim Abu Dhabi in 2017. In March 2012 the TDIC announced that it was inviting contractors to bid for the main contract works at the Louvre. Saadiyat is one of several islands that have been the focus of development efforts by both the government and the private sector, with these areas having provided ample work for the construction sector in recent years (see analysis).

**AL MARYAH ISLAND:** Al Maryah Island (formerly Sowwah Island), developed by Mubadala Real Estate & Infrastructure, has been identified by the government as the location of a new Central Business District (CBD). The island is being developed in a series of phases, the first of which primarily involves the development of Sowwah Square, the heart of Abu Dhabi's CBD, which comprises an office complex with four grade-A office towers, the new Abu Dhabi Securities Exchange headquarters, Rosewood Hotel Abu Dhabi and The Galleria

**Permits issued by building usage & region, 2010**

| Building usage | Abu Dhabi | Al Ain | Al Gharbia |
|---|---|---|---|
| Total | 7265 | 3377 | 887 |
| Residential | 4473 | 2822 | 653 |
| Commercial | 968 | 313 | 75 |
| Industrial | 538 | 196 | 100 |
| Public utilities | 3 | 44 | 34 |
| Agricultural | 50 | 55 | 24 |
| Residential & commercial | 6 | 193 | 0 |
| Temporary | 279 | 0 | 0 |
| Others | 821 | 113 | 1 |

SOURCE: Statistics Centre – Abu Dhabi

A list of development projects was approved in 2012

at Sowwah Square, a 33,000-sq-metre retail and dining precinct. The first tower, Al Sila, on Sowwah Square, has been operational since March 2011 and is currently 89% leased. Tower 3 (Al Maqam) is 60% leased, with the first tenants expected to move in before the end of 2012. Towers 2 and 4 are also complete and receiving strong enquiry from the market. Cleveland Clinic Abu Dhabi, the state-of-the-art hospital, will sit adjacent to Sowwah Square on Al Maryah Island.

**REEM ISLAND:** Located adjacent to Al Maryah Island and a short drive from downtown Abu Dhabi City is Reem Island, which is being led by three master developers: Tamouh Investments, Sorouh Real Estate and Reem Investments. Tamouh's primary project to date has been Marina Square, a mixed-use community featuring 13 high-rise residential towers, with 3440 units having been delivered. When complete, Marina Square will include a boutique mall, medical clinics, a five-star hotel and various food and beverage outlets.

Sorouh is also the master developer behind Shams Abu Dhabi, a mixture of commercial, retail and residential space including the 74-storey Sky Tower and 65-storey Sun Tower, both of which have been delivered. Construction of the Gate Towers, also part of Shams and featuring three interconnected towers, was 80% complete as of mid-2012. Reem Investments is also responsible for the 184-ha Najmat development, an $8bn mixed-use project that is still in its early stages.

While these islands – plus others like Yas – being developed mainly as a tourist and leisure destination by Aldar – represent important demand drivers for the sector, other projects in Abu Dhabi City continued to provide work for contractors in 2011 and early 2012. For example, Etihad Towers, a mixed-use complex comprising five towers ranging from 54 to 75 floors, was handed over in December 2011. Arabian Construction Company was the main contractor for the project, which was developed by Sheikh Suroor Projects Department.

Etihad Towers is notable for the fact that all five of its towers exceeded 200 metres. Indeed, in 2011 nine

Infrastructure projects in transport, utilities, housing and health care provide significant opportunities for construction companies

Due to the global financial crisis, some developers and construction firms are finding it difficult to secure financing. In general, banks are now demanding more in terms of collateral and charging higher interest rates.

buildings taller than 200 metres were added to the Abu Dhabi skyline, a "remarkable" achievement according to a report by the Council on Tall Buildings and Urban Habitat of the US, particularly as the emirate only had two such buildings at the beginning of 2011. The report added that 13 more towers are under construction.

Other handovers in 2011 included Al Zeina and Al Muneera, two residential developments at Al Raha Beach, a waterfront city that will cover more than 6m sq metres. Developed by Aldar, Al Raha Beach is a 20-minute drive from the centre of Abu Dhabi City and 10 minutes from the airport. The units at Al Muneera include 1286 apartments, 148 town houses and 11 villas, while the development also features Al Noor Tower, a 12-storey office building. Al Zeina has 1221 units, with 952 apartments, 26 penthouses, 119 townhouses and 124 attached and semi-attached villas.

Aldar also has a number of ongoing projects, including the Yas Mall, which is located on Yas Island and will have more than 235,000 sq metres of gross leasable area. The mall is being built by Six Construct, which is a subsidiary of BESIX Group, a joint venture between OCI and Belgian construction group Besix. It is scheduled for completion in the fourth quarter of 2013. Another continuing development for Aldar is the World Trade Centre, previously known as Central Market. This mixed-use development in downtown Abu Dhabi City includes a shopping mall and two skyscrapers – Trust Tower, which will provide grade-A office space, and The Domain, a 382-metre-tall residential building. In December 2011 Aldar sold the World Trade Centre project to the government of Abu Dhabi as part of a deal that also included the transfer of several hundred homes at the Al Raha Beach development. In total, the government agreed to pay $4.6bn to the developer, with Aldar receiving $1.2bn within two months and the remaining payments spread over the next four years. This followed an agreement between Aldar and the government in January 2011 with the latter buying $2.97bn of the firm's Yas Island assets, including the Ferrari World theme park. Aldar announced in March 2012 that it was studying the possibility of a merger with Sorouh.

**FINANCING:** As a result of the global financial crisis, some developers and construction companies could be facing challenges when it comes to financing. Indeed, some banks may be hesitant to lend now, particularly to developers who had difficulties paying back loans that were taken at the peak of the market and based on appraisals that were too high. In general, lenders are demanding more in terms of collateral and charging higher interest rates. However, for developers with a good credit history, securing financing may not be difficult, Chammas of Saudi Oger told OBG. "Project financing has not dried up for real estate projects; banks are willing to lend to those groups with the right project and financial track record," he said. For example, Aldar secured a Dh4bn ($1.1bn) revolving credit facility with National Bank of Abu Dhabi in April 2012,

For those with viable projects and an ability to secure financing, now may be a good time to build. The boom in the UAE in the years leading up to 2008 created substantial construction capacity that is now being underutilised, meaning contractors are willing to sacrifice margins to win new business. Moreover, not only local and regional firms are offering their services in Abu Dhabi – competition is also coming from further afield, as the global economy slows. For example, Spanish construction powerhouse ACS was awarded the contract to build the Al Mafraq hospital in Abu Dhabi. Additional competition from international construction firms could put further downward pressure on prices. "Many Western companies are moving towards the region and Abu Dhabi in particular, because of the crisis they are facing in their home markets," Syed Basar Shueb, the CEO of PAL Group, told OBG. "This has put pressure on prices and increased competition overall."

**CONSOLIDATION:** With profit margins falling, one possible response from market participants could be to merge, as companies look to benefit from economies of scale and scope. "The market is saturated and the presence of many contractors has caused a decline in profit margins," Saeed K Al Mehairi, the CEO of Pivot Engineering & General Contracting, a locally owned general contractor headquartered in Abu Dhabi, said. "There should be consolidation and additional support for local contractors." Ultimately, consolidation could strengthen the sector, according to Adel Gad, the COO of CPC Emirates, a Saudi Arabia-based firm that supplies construction materials. "The current down-cycle in building activity will lead to consolidation in the construction market. This creates a healthier competitive environment and will put the sector in a better position to execute projects starting in 2013," he told OBG.

**MATERIALS:** Another factor that may be contributing to lower margins is the cost of materials. When demand for construction was high, contractors were able to negotiate escalation clauses into their agreements with developers, but they no longer have the leverage to do so. The price of cement demonstrated no clear pattern in 2011, according to a report from Statistics Centre – Abu Dhabi (SCAD), with the average monthly prices of the cement group posting increases that ranged from 0.9% in September and 7.6% in July, while declines were between 0.6% in June and 3.8% in January.

This variability seems to be continuing into 2012, with SCAD reporting a rise of 4.2% in January, followed by a decline of 0.3% in February, with a slight increase of 0.9% in March. Prices rose sharply in April (8.7%), but then fell by 3.4% in May. Typically contractors buy ready-mix rather than cement, but pricing of this product is often tied to cement such that ready-mix manufacturers can pass on any cost increases that they incur.

**Construction industry indicators, 2007-10**

| | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Share of GDP (%) | 8.6 | 9.3 | 14.5 | 13 |
| Gross output (% of GDP) | 14.3 | 46.5 | 27.4 | 24.1 |
| Capital formation (% of GDP) | 0.7 | 0.7 | 0.5 | 0.8 |
| Employee compensation (Dh bn) | 12 | 15 | 16 | 17 |

SOURCE: Statistics Centre – Abu Dhabi

Competition from international construction companies could increase downward pressure on prices

Meanwhile, SCAD reported that the price of steel increased in 2011 by 15.7% over the year, with the biggest jump coming in February at 27.2%. However, the price fell in other months, including April 2011, when it decreased by 4.1%. During the first four months of 2012, the price of steel steadily fell, most notably in January at 5.9%, but the rate of decline subsequently slowed, with prices decreasing by 0.9% in April. In an interview published in local newspaper *The National* in April 2012, Farouk Toukan of Abu Dhabi-based Cicon said that he expects steel prices in 2012 to be around $675 a tonne, plus or minus 2%, "barring any unexpected development". Cicon has steel cutting and bending facilities in Abu Dhabi and Dubai with a capacity of 60,000 tonnes a month. Toukan added that any developments in steel prices can be largely attributed to regional market conditions. "This has nothing to do with the China market. Steel prices in the GCC – and particularly in the UAE – are determined by the regional producers like Emirates Steel Industries, Sabic, Qatar Steel Company and the many Turkish steel mills," he said.

Based on the International Codes from the International Code Council in the US, the proposed emirate-wide building code will create better, safer, greener and more economical buildings, and improve disabled access and fire safety.

**REGULATORY DEVELOPMENTS:** Another factor that could affect costs is an emirate-wide building code that has been proposed by the Department of Municipal Affairs (DMA). According to the DMA, the International Building Codes for the Emirate of Abu Dhabi, as the new code is officially known, will create better, safer, greener and more economical buildings, as well as improve disabled access and fire safety.

The building code, which has been under development for several years, is based on the International Codes from the International Code Council in the US. Prior to selecting this system, the DMA studied best-in-class building codes from various countries, concluding that the International Codes would best meet the current and future requirements of the emirate.

Sector participants have responded well to the proposed new regulations, with Wassim G Merhebi, the

Unified building codes will help address issues like energy savings

The government's sustainability initiative, Estidama, includes the Pearl Rating system that deals with the built environment and its performance, with a focus on optimal energy and water consumption. To secure a building permit, a one pearl rating is the compulsory minimum

executive director at Arabian Construction Company telling OBG, "The new building code will be a welcome development for the construction industry provided it is adopted from building codes in developed markets. This will help to raise professional and safety standards among the local industry." The DMA has worked to customise the codes to meet local specifications for the emirate. For example, officials removed references to snow loads and modified energy standards to be consistent with the Estidama Pearl Rating system. Estidama, the government's sustainability initiative, grew out of the Urban Planning Council's Plan Abu Dhabi 2030 and presents a series of guidelines that are now referenced in documents such as the Urban Street Design Manual, the Coastal Development Guidelines, the Abu Dhabi Development Code, the Community Facility Guidelines and Sustainable Urban Design Principles.

The Pearl Rating system is a component of Estidama that deals with the built environment and its performance in relation to economic, environmental, cultural and social aspects, with particular emphasis placed on optimal energy and water consumption. There are five levels, with one pearl the lowest and five the highest. A one pearl rating is the mandatory minimum to secure a building permit. For government buildings, plans must meet the two-pearl standard. As is the case with the new building code, the response from the market has been positive. Sami Asad, the CEO of Aldar, told OBG, "The market is becoming more rational and regulated from a specifications point of view. Unified building codes will protect end-users and initiatives such as Estidama help to bring issues such as sustainability and energy savings to the forefront." In addition, providing more sophisticated data for decision-making is increasingly important as the market matures and authorities seek to improve regulation and project implementation. As such, construction-related services like data collection can be attractive for firms that can bring new expertise to the market. "We see potential for hydrographic surveying and charting services as the emirate continues to develop its offshore oil and gas assets and expand its ports to accommodate for the increasing marine navigation based trading activities," said Khaled Al Melhi, the CEO of Bayanat, a mapping and surveying company established in 2011 by Mubadala.

**OUTLOOK:** The construction sector in Abu Dhabi may well be coming to the bottom of a cycle, with demand expected to rise again as the government begins to tender a number of additional projects. Indeed, as Nizam Baki, the general manager at Sultaco, a local supplier of building materials, told OBG, "There has been a slowdown in business in the last couple of years as a result of the decrease in new building activity, but we expect the construction environment to gradually improve throughout 2012." Moreover, with the infrastructure in place at important development areas like Reem Island and Al Maryah Island, additional investments – and thus additional work for contractors – could be on the horizon.

Major infrastructure projects have been approved by the government

# Executive decisions

## New development projects have been announced in sectors ranging from housing to health care

After having put several major projects on hold during 2011, the Executive Council announced in January 2012 that it had approved a number of projects across several sectors, including transport, housing, health care and tourism. With commercial real estate development expected to be relatively slow in 2012 as the emirate works to absorb the large amount of residential and office space that came to the market in 2011, these other sectors represent important alternatives for contractors looking to utilise their excess capacity.

**MOVING ALONG:** Transport infrastructure projects look set to become important drivers of local construction activity. A number of transport projects were approved by the government in January 2012, including a new terminal building at Abu Dhabi International Airport, part of a larger $6.8bn expansion plan for the capital's airport. The new facility, which will cover 700,000 sq metres and be able to handle 30m passengers, is expected to be operational by the first half of 2017. This expansion will bring total airport capacity to 47m passengers per year by 2017. Although the Executive Council only approved the new terminal in January 2012, it was tendered in November 2011, with six consortia submitting bids (Al Habtoor Murray & Roberts, Bechtel-Al Jaber Hyundai Engineering & Construction-Kumho, Larsen & Toubro-NPC, Samsung-ACC and Arabtec-TAV-CCC). In June 2012 ADAC announced that the Arabtec TAV CCC consortium was the preferred bidder for the new terminal's construction contract, which has been valued at Dh10.8bn ($2.9bn). The consortium was chosen from among four groups selected in February, which in turn were drawn from the six bids submitted the previous November.

Roads were an important part of the January 2012 announcement, with two major projects approved. The first is the expansion of the Al Mafraq-Ghuwaifat Road, which connects Abu Dhabi to Saudi Arabia. The project involves lengthening this road by 246 km as well as building 15 new interchanges, with the latter improving traffic flow, as well as the safety and security of road users. The second project is the extension of the Abu Dhabi to Dubai portion of the existing Emirates Road. In June 2012 the Executive Committee of the Executive Council announced it had approved additional road works, including the second phase of the northern circular road project in Al Ain City and the development of its intersections, as well as the tarmac road construction project that will connect Nafeer and the Al Jifn industrial area in the Western Region.

As commercial real estate development is expected to be relatively slow in 2012, the transport, housing, health care and tourism sectors represent important alternatives for contractors looking for other opportunities.

**HOUSING PROJECTS:** While the development of high-end luxury housing and commercial spaces has been the focus of Abu Dhabi's real estate and construction firms for some time, some attention is starting to be directed towards subsidised and free housing that the government provides to nationals. Among the approved projects announced in January 2012 were a number of investments in housing and community facilities in Liwa, Ghayathi, Al Hayer, Al Shuaib, Bida Al Mutawaa, Mazyed, Um Ghafa, Nema, Al Salamat Umm Alashtan and Alybanh. Additional infrastructure projects will be implemented for a number of other residential districts including the area of north Al Wathba, the location of one of the largest Emirati housing projects approved to date. The development, which covers 4178 ha, will eventually provide 13,150 residential plots. While it will take some time to complete this project and others, during 2012 alone the government of Abu Dhabi plans to provide 7608 more residential villas to its citizens, according to the Executive Council.

**WORK IN PROGRESS:** Three housing projects were already under way in 2011, as part of the National Housing Programme that is being overseen by the Urban Planning Council, a government entity responsible for the development of all urban environments within the emirate. In August 2011 Aldar Properties, the largest developer in Abu Dhabi and partially owned by the government, announced that it was delivering nearly 5000 homes as part of this housing scheme. The residences are located in the Al Falah development, which covers an area of 12.5m sq metres east of Abu Dhabi

The Executive Council has approved budgets and opening dates for three museums to be located on Saadiyat Island. The Louvre Abu Dhabi will be the first to open in 2015, followed by the Zayed National Museum in 2016 and the Guggenheim Abu Dhabi in 2017

International Airport. Upon completion, which is expected by the end of 2012, the development will include facilities such as schools and shopping centres.

The second project – known as the Yas Island Villas – is being carried out by local firm Royal Development Company and will consist of 500 villas. As is the case with Al Falah, the Yas Island project will mix residences, shopping facilities, services and recreational areas, which is in line with the UPC's objective of creating "complete communities". Sorouh Real Estate, another Abu Dhabi-based developer, is handling the Dh5.4bn ($1.47bn) Watani project. Sorouh announced in April 2012 that it had nearly completed the first phase of the project, which involves building nearly 1400 villas.

The government's plans to build housing for Emiratis could provide a boost for local developers and contractors during a lull in commercial projects. Indeed, in the wake of the government's January 2012 announcement, the stock price of both Aldar and Sorouh Real Estate jumped 6% and 5.3% percent.

As Julian Bruce, Dubai-based equity sales head at EFG-Hermes Holding SAE, told Bloomberg, "Although schedules, budgets and contractors have yet to be announced, speculative buyers are active on the assumption that companies such as Aldar and Sorouh would be front-line beneficiaries of any contract awards."

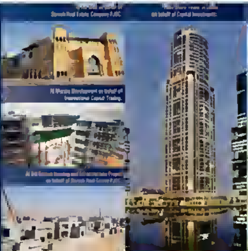
**HEALTH CARE:** Another area highlighted for investment by the Executive Council in its January 2012 statement was the health care system, which Abu Dhabi has continued to upgrade and expand over the past several years. In its announcement, the Executive Council highlighted Cleveland Clinic Abu Dhabi (CCAD), which is being developed by Mubadala Healthcare, a division of Mubadala Development Company, a government-owned investment entity. CCAD, which is currently being constructed and is scheduled to open in late 2013, will have 360 beds, making it the fourth-largest hospital in Abu Dhabi in terms of bed capacity. Aldar has acted as development manager for the project, overseeing the design, construction and commissioning of the hospital, while a joint venture of Six Construct and Samsung was awarded the construction contract. But CCAD is only one part of the government's plan, with the Executive Council having approved the building of six hospitals, a medical rehabilitation centre, a dialysis centre, four walk-in clinics, a disease prevention and screening centre, and a special-needs centre, which will be part of the system overseen by Abu Dhabi Health Services Company (SEHA), the state provider of health care services. These include three new hospitals at Sheikh Khalifa Medical City in Abu Dhabi City, as well as a major expansion plan at Al Ain Hospital that will increase bed capacity from 371 to 688. In February 2012 SEHA announced it was reviewing tenders for the Al Ain project, with construction expected to begin in late 2012 and be completed within three years.

**TOURISM:** The January 2012 announcement also revealed that the Executive Council had approved budgets and opening dates for three museums to be located on Saadiyat Island, a 27-sq-km island that is being developed into a major cultural centre by the Tourism Development & Investment Company (TDIC), a government-owned entity. The first of the three museums, the Louvre Abu Dhabi, is now scheduled to open in 2015, followed by the Zayed National Museum in 2016 and the Guggenheim Abu Dhabi in 2017.

Following the decision by the Executive Council, in March 2012 the TDIC announced that it was inviting builders to submit fresh bids for the main works at the Louvre, adding that it expects that the contract will be awarded in the final quarter of 2012. The developer initially tendered for this contract in 2010, but a winner was never announced. Meanwhile, the TDIC has yet to announce any specific timelines for the Guggenheim project. The concrete works for this project was tendered in October 2011, but it was subsequently recalled.

The resumption of the museum projects may, in fact, be one of the more important developments to come out of the January 2012 Executive Council announcement. The fact that this development has once again come to the front and centre could do much to restore confidence in the construction sector as a whole.





New communities are now being built in previously uninhabited areas

# Island living

## Communities are being built from scratch as development spreads to new areas

While Abu Dhabi Island has traditionally been the centre of the capital city – the site of much of the emirate's commerce, as well as many of its hotels and retail facilities – planning authorities have for some time worked to relocate some of this activity to outlying areas, including several nearby islands. This has created numerous opportunities in the real estate and construction sectors, with entirely new communities being built in previously uninhabited areas. Four of the main islands under development – Al Maryah, Reem, Yas and Saadiyat – are at various stages of completion, but each offers ample room for growth looking ahead.

**AL MARYAH:** As envisioned in Plan Abu Dhabi 2030: Urban Structure Framework Plan, a document produced by Abu Dhabi's Urban Planning Council, Al Maryah Island (formerly Sowwah Island) will be at the centre of Abu Dhabi City's new Central Business District (CBD). Located between Reem Island and the downtown area of Abu Dhabi, the island is being modelled on some of the world's leading mixed-use business districts.

According to master developer Mubadala Real Estate & Infrastructure, the island will eventually have a mixture of commercial and residential areas, luxury hotels and retail facilities, in addition to a number of landscaped parks and pedestrian-friendly spaces. In total, the island will be home to 30,000 residents and have a daily working population of approximately 75,000. Al Maryah has also been classified as an investment zone, which means that UAE and GCC nationals can purchase freehold land on the island, while other foreign investors can obtain long-term leasing *musataha* rights (the legal right to build on another person's land) and long-term leases for individual units and floors of buildings.

**PHASES:** The island is being developed in phases, the first of which involves building Sowwah Square, with Saudi Oger leading the construction. The development comprises four office towers, each standing between 30 and 36 storeys, with combined leasable space of 180,000 sq metres. The grade-A buildings encircle the new headquarters of the Abu Dhabi Securities Exchange. Tower 1, Al Sila, on Sowwah Square, was delivered in March 2011, with the remaining three handed over during the first quarter of 2012. Leasing has been extremely positive, with 89% of the Al Sila and 60% of Al Maqam (Tower 3) leased to global blue chip firms. Meanwhile, adjacent to Sowwah Square, two luxury hotels are under development. The first, the 34-storey Rosewood Abu Dhabi, will have 189 guest rooms and suites, 58 serviced residences, 73 residences for annual lease and four penthouses. Construction – which is being led by local contractor Arabian Construction Company – is nearing completion in preparation for pre-opening fit out. A formal opening date will be announced nearer completion. Also among the first phase of work on Al Maryah Island is Cleveland Clinic Abu Dhabi, which is being built by a joint venture of Six Construct and Samsung.

**REEM:** Located 300 metres off the north-eastern coast of Abu Dhabi City next to Al Maryah Island, Reem Island covers 8.8m sq metres. Reem will be home to a number of commercial and residential buildings, as well as schools, medical clinics, malls, hotels, gardens and beaches. Nearly 200,000 people are expected to live on the island, and as is the case with Al Maryah Island, foreign nationals can buy property on an extendable 99-year leasehold basis. The Reem project is being led by three master developers: Tamouh Investments, Sorouh Real Estate and Reem Investments. The primary project for Tamouh, which owns 60% of the island's land, is Marina Square, a mixed-use development covering 26.4 ha that has 16 high-rise towers (13 residential, one commercial, one office and one for serviced apartments) and 24 townhouses over a built-up area of 1.3m sq metres. All 3440 residential units at Marina Square have now been delivered. When complete, Marina Square will include a boutique mall, medical clinics, a five-star hotel and food and beverage outlets. All of these facilities are expected to be ready by 2013.

Meanwhile, Sorouh is the master developer behind Shams Abu Dhabi, a mixture of commercial, retail and residential space that will be the future home for 52,388

Planning authorities have been working to relocate commerce, tourism and retail facilities from Abu Dhabi Island to outlying areas, including several nearby islands, creating opportunities for real estate and construction companies.

Saadiyat and Yas Islands have been mainly developed as tourist destinations and both will have a range of attractions as well as hotels, shopping food and beverage outlets, and residential areas.

residents. The development includes the 74-storey Sky Tower, the 65-storey Sun Tower, the Gate Towers, the Arc building and a shopping mall. Sky and Sun Towers combined have 1154 residential units, as well as 810,236 sq feet of net saleable area of commercial office space, making them the first grade-A buildings to be delivered on Reem Island. As of May 2012 delivery at the Sun and Sky towers was nearly complete. Progress is also being made at the Gate Towers, comprising three high-rise buildings. In June 2012 the developer reported that the project was 80% complete with construction to be finished between the final quarter of 2012 and the first quarter of 2013. The main contractor for the Gate Towers and the Sky and Sun Towers is Abu Dhabi-based Arabian Construction Company.

Finally, Reem Investments, like Sorouh, owns around 20% of the island and is responsible for a 184-ha development called Najmat. The $8bn mixed-use project, which is located to the south east of the entrance to Reem Island, will house 49,524 residents and will have schools, health facilities and parks. The development will also have three marinas. As of mid-2012 Najmat was still in its early phases, with one mixed-use tower – known as Marina Bay – having opened.

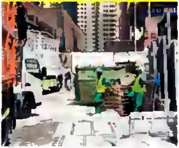
**INFRASTRUCTURE:** Each of the three master developers on Reem may be at different stages with their respective projects but the basic infrastructure of the island – the roads, electricity and fibre-optic lines and sewer and water pipes that provide the backbone of any functioning community – are already in place, thanks to Bunya, a company that the three master developers jointly incorporated to plan, execute and manage infrastructure and operations on Reem Island.

Bunya's main role is to facilitate the development of the island by coordinating between the numerous parties – both public and private – that are involved in the process. During the construction phase, the firm has been responsible for, inter alia, coordinating with local authorities on issues such as permits and the delivery of utilities. According to Tariq Harim Sultan, the CEO of Bunya, the government approval process for permits is becoming more streamlined and regulators are working more closely with developers, which can speed up the construction process. "Previous learning curves such as obtaining permits or coordinating with other parties involved in the development process are becoming less of an issue. If this model of collaboration continues, all of the entities involved in the development process will be able to adapt quicker in the future, making Vision 2030 achievable," he told OBG.

**SAADIYAT & YAS:** While the work to date on Al Maryah and Reem Islands has been mainly focused on providing residential units and office space, Saadiyat and Yas Islands have been primarily developed as touristic destinations. The former, a 27-sq-km natural island, is being positioned as a cultural centre, featuring at least three museums, including local branches of the Guggenheim and Louvre. While these cultural projects had been put on hold in October 2011, in January 2012 the government announced that new budgets and timelines for the museums had been approved, with the first (the Louvre) scheduled to open in 2015. According to the TDIC, the Saadiyat Island project is expected to be fully completed by 2020, at which point it will have leisure, tourism, retail and residential facilities in addition to the attractions of the cultural district.

Meanwhile, Yas, like Saadiyat, will eventually have a variety of touristic attractions in addition to hotels, retail facilities, food and beverage outlets, and residential areas, according to master developer Aldar Properties. It is mainly known as the location of three of Abu Dhabi city's primary touristic offerings: the Yas Marina Circuit, Ferrari World Abu Dhabi theme park, and the Yas Waterworld Abu Dhabi waterpark, as well as seven hotels. A new shopping complex, the Yas Mall, is currently under construction, with the main construction contract having been awarded to Six Construct.

Development of the islands continues to move ahead, with new projects being announced and tendered. Indeed, the islands are still in relatively early stages of development, with a number of residential, commercial, retail, hotel and other projects waiting in the wings.



Several large projects have involved dredging and reclamation works

# Depth charges

## Land reclamation and dredging are big business

An important part of the development of Abu Dhabi has been the land reclamation and dredging works that have occurred along the emirate's shoreline. This type of work has helped to form the island and coastal developments that are playing an increasingly important role in the local real estate market. But with most of this work having already been completed, dredging and reclamation firms are increasingly turning towards alternative activities, such as developing artificial islands for the oil and gas industry and expanding the emirate's ports and shipping channels.

**LAND FROM THE SEA.** For developers that want to build on the coastline or an island, a necessary first step is often dredging and the reclamation of land from the water. Several projects that at least partially came onto the market in 2011 initially involved such dredging and reclamation works. For example, Belgian company Dredging International was awarded the dredging contract for Al Raha Beach from Aldar Properties in early 2006, following a tendering process that involved the participation of several other firms, including Dutch company Boskalis Westminster, US-based Great Lakes Dredge & Dock, Belgium's Jan de Nul and local firm National Marine Dredging Corporation (NMDC). In October 2006 the agreement with Dredging International was significantly extended, more than tripling the value of the contract from €32m to €110m.

Saadiyat Island is another development that required dredging and land reclamation. In December 2006 the Tourism Development & Investment Company, the developer responsible for Saadiyat, awarded a Dh815m ($222m) contract to Jan de Nul to raise the level of the island from 2m to 11m above sea level. Moreover, additional steps were undertaken to ensure that this work did not disturb the environment.

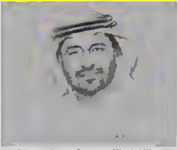
**INDUSTRIAL PROJECTS:** Dredging is not just about preparing land to build hotels and apartment buildings, it can also be used to develop ports and associated infrastructure. For example, Abu Dhabi's Urban Planning Council was behind a project to deepen the Mussafah channel to accommodate larger ships. In 2009 NMDC was awarded the Dh1.5bn ($408m) contract for this work, which involved dredging 65m cu metres of soil to create a 53-km-long channel with a minimum width and depth of 200 metres and 9 metres, respectively.

The waterway will provide a navigation channel that can accommodate the two-way movement of large commercial vessels such as Panamax carriers and single-way movement for large oil rigs. The Mussafah channel will complement the development of the Khalifa Port & Industrial Zone (KPIZ), as well as the existing Mina Zayed Port on Abu Dhabi Island. KPIZ, which is being developed by the Abu Dhabi Ports Company (ADPC), was opened in September 2012 and has an initial capacity of 2m twenty-foot equivalent container units and 12m tonnes of cargo. In 2007 the ADPC announced that it had awarded a Dh5.5bn ($1.5bn) contract to a consortium of Greece's Archirodon Construction, Boskalis Westminster and Korea's Hyundai Engineering and Construction for the dredging, reclamation and rock works, as well as the construction of a quay wall.

Another dredging and marine construction project is the development of four artificial islands in the Zakum offshore field. In 2009, Zakum Development Company awarded a Dh2.3bn ($626m) contract to NMDC to build the islands, which involves dredging and level operations, ground amelioration, beach protection work and building four ports and protective breakers.

Looking ahead, projects in the oil and gas sector will continue to provide work for dredging and land reclamation firms, according to Yasser Nasr Zaghloul, the CEO of NMDC. "There has been a slowdown in the construction sector, but business in oil and gas services has increased dramatically over this same timeframe. We anticipate that demand from the oil industry will remain strong for the foreseeable future," he told OBG. Moreover, as the government continues its push to position Abu Dhabi as a centre for industry and transport, more port and industrial infrastructure projects could also offer opportunities for new work in this area.

As most of land reclamation and dredging works for the real estate sector along the shoreline have already been completed, dredging and reclamation firms are now shifting focus to developing artificial islands for the oil and gas industry and expanding local ports and shipping channels.



Majid Al Mansoori, Chairman, Department of Municipal Affairs

# Setting standards

## OBG talks to Majid Al Mansoori, Chairman, Department of Municipal Affairs (DMA)

**How will new building codes affect the sector?**

**AL MANSOORI:** The new codes are a significant step in sustainability and safety for the construction sector because they create a comprehensive set of standards by which all entities in the industry must abide. This will not only create healthy competition within the sector, but should also vastly improve the end products. The lifespan, quality and environmental sustainability of all buildings will increase significantly. Finally these improvements will go a long way in drawing foreign investment into the sector, as there will be a higher level of trust in the operating atmosphere.

**How are legacy issues from prior zoning and changes in construction regulations being dealt with?**

**AL MANSOORI:** By balancing economic, social and environmental considerations, Plan Abu Dhabi 2030 employs best practice to address the legacy issues of the past and bring the emirate into a new era of development planning and delivery. Enablers include a comprehensive development code, which applies a flexible performance-based methodology for planning. Through this approach, legacy issues of architectural incoherence, inappropriate "uses" in "mixed-use" developments, inadequate parking and lack of community services will become a thing of the past.

**What is the DMA doing to position Abu Dhabi as a political, business and tourism destination?**

**AL MANSOORI:** To embed quality assurance and attract foreign investment, the DMA is implementing a suite of customer-centric regulations and management systems into the property and infrastructure sector. These include a "best in class" building code, a comprehensive asset management framework and a "top down" environmental, health and safety management system.

To provide businesses access to data on Abu Dhabi's natural and built assets, the DMA has developed the emirate-wide geographic information system (GIS) framework. With the aims of protecting critical infrastructure assets and expediting the lengthy permitting process, the DMA is implementing an automated review and approvals system based on the framework.

DMA function is also central to the success of the tourism sector, principally through the provision of quality services to enhance the city's image. This includes the management of beaches and parks, public signs and amenities, all of which contribute positively to the overall visitor experience and the emirate's brand.

**What can be done to encourage more lower-income housing developments throughout the emirate?**

**AL MANSOORI:** First, product size and flexibility need to be modified to fit the affordable housing model. Second, like all property segments, location, proximity to public transportation and community services all play an important role in the uptake of property. Third, construction and operational costs are a key determinant in creating affordable housing, as is the product's anticipated lifecycle. The DMA's building code is central to delivering durable, quality-assured construction for all property segments. The code balances quality and safety with economics, which benefits developers in the affordable housing sector.

**What features of local development distinguish Abu Dhabi from other emirates within the UAE?**

**AL MANSOORI:** Economic development in all the emirates affects the others. Our unity is based on economic openness and enhancing the relationship between the public and private sector. But this does not mean there are no differences in investment priorities and development projects in the UAE as a whole. Abu Dhabi, for instance, has started building nuclear power stations to meet the increasing demand for energy, and development of Masdar City, designed to emit zero carbon dioxide, is in the works. Abu Dhabi is also establishing an industrial base for aerospace manufacturing and high-tech products. These measures help Abu Dhabi stand out and diversify its economy.

New draft real estate laws are currently under review

# Office politics

## New stock coming onto the market is driving prices down

While Abu Dhabi experienced a shortage of office space and residences during the spell of rapid economic growth leading up to 2008, a number of commercial and residential projects have since come onto the market, bringing prices down to a level more comparable with those in neighbouring Dubai. This trend is expected to continue for the remainder of 2012, which will help consumers and businesses looking for office space, but for developers and landlords it will remain a challenging period. However, there remain some bright spots in the market, including industrial real estate, a segment that is benefitting from the government's push for economic diversification. At the same time, state-led housing programmes for Emiratis are also providing opportunities for developers to stay busy during this relatively quiet period.

**RESIDENTIAL:** The main challenge for Abu Dhabi real estate, across both the residential and office segments, has been the large number of completed (or at least semi-completed) projects that came onto the market in 2011 and early 2012. These included Marina Square on Reem Island, a mixed-use community development with 13 high-rise residential towers. Also on Reem Island but part of Sorouh Real Estate's Shams Abu Dhabi development are the 74-storey Sky Tower and the 65-storey Sun Tower, both of which started to hand over units in 2011. Other significant deliveries in 2011 included units Al Raha Beach's Al Zeina and Al Muneera projects. Raha Beach is a development from Aldar Properties, the largest developer in Abu Dhabi and partially owned by the government. On Abu Dhabi Island, Etihad Towers, a mixed-use complex comprising five towers that range from 54 to 75 floors, was handed over in December 2011. On Saadiyat Island, the St. Regis Apartments, part of the St Regis Saadiyat Island Resort, came onto the market in November 2011 with 259 units.

For the remainder of 2012 additional units came onto the market from developments that have started to deliver, such as Reem Island, in addition to new projects that will be completed, including the Nation Towers project on the Corniche, the Al Bateen Park development and Rihan Heights. But even setting aside this influx of capacity, the market has already had to absorb a large increase in supply. According to real estate services firm Jones Lang Lasalle, 2700 units came onto the market in the fourth quarter of 2011, followed by 7900 in the first three quarters of 2012, bringing total stock in Abu Dhabi City to 208,000 units.

**PRICES:** Sales prices have accordingly come down with the influx of new supply and the lower cost of construction, although there is some variation in terms of location and type of residence. "There has been a decrease in the cost of construction as a result of the global financial crisis," said Yousef Al Nowais, the managing director of Al Maabar. "This benefits developers who are continuing with their projects, and these construction cost savings will then be passed on to the end user." In an April 2012 report from Cluttons, the real estate consultancy said that apartment values have come down more than those for villas, with the greatest declines for the former at Al Reem and Marina Square, falling 7.4% and 7.3% in the first quarter of 2012 compared to the third quarter of 2011. By comparison, the most notable declines for villas were at Al Raha Gardens, down by 4.8% on the third quarter of 2011, and at Al Reef Villas, showing a 2% decrease over the same period.

Stepping back and putting things in a broader perspective, prices in 2012 are far below those that prevailed at the height of the market. According to Jones Lang Lasalle, during the third quarter of 2012, the average residential sales price was around Dh10,200 ($2,779) per sq metre, down 53% from a peak of Dh21,500 ($5850) during the fourth quarter of 2008.

**SALES TRENDS:** Despite the continued drop in prices, sales have remained slow, and market participants have accordingly adjusted their behaviour. For example, banks are lowering mortgage rates in an attempt to encourage more buying. "The market for residential real estate in Abu Dhabi is increasingly active due to the improvements in confidence and the availability of

Sales prices have seen a decline due to the influx of new supply with apartment values coming down more than those for villas. Despite the continued drop in prices, sales have remained slow.

The new draft real estate laws currently under review would introduce features such as the regulation of master- and sub-developers, a licensing regime for market participants such as brokers and surveyors, and a requirement for certain contractual provisions in sale and purchase agreements

attractive finance options," Saeed K Al Mehairi, the CEO of Pivot Engineering & General Contracting, told OBG. "The majority of demand is for middle-income housing, but current housing stock caters primarily for upper-income segments of the market. Prices either need to adjust or additional middle-income housing units should be released to accommodate such high demand."

Owners have also started to utilise some new techniques to encourage sales, as Sami Asad, the CEO of Aldar, told OBG. "Developers have adapted to the market to make homeownership easier. For example we have developed a rent-to-own scheme which helps facilitate our customers needs," he said. Indeed, this programme which was introduced by Aldar in September 2011, can be used to buy units at Al Zeina in the Raha Beach development. The scheme is structured such that a tenant enters into a two-year lease contract with Aldar, and the annual rental amount is fixed for the two year period, with an option to purchase the property at any time during the lease. If this option is exercised at the end of the two years, the tenant will receive 100% of the first year's rent and 90% of the second year's rent in the form of credit towards the purchase price. Tenants are also free to walk away from the agreement at the end of two years and can moreover assign the accumulated credit to any other person. The only risk for participants in the plan is that rents and sales prices could go down, but they are not obligated to buy.

Aldar's announcement followed the roll-out of a similar plan from Sorouh in July 2011 for its unsold units in Sun Tower on Reem Island. According to the terms of this programme, tenants enter into a three-year lease agreement, during which the rent is fixed. The tenant is given the option to buy the unit at the end of each year, at which point 90% of the rent paid to date can be converted into equity. The buy-out price for each year is established at the beginning of the contract, and the tenant can choose to exit the agreement without any penalty. These types of programmes can be useful for people who do not have access to sufficient funds for a down payment. If enough equity has been accumulated during the rent-to-own leasing period, it may entirely obviate the need for additional funds. As Sorouh noted in documents it prepared to explain the programme, it is possible to accumulate 15% of the purchase price during the lease period, which is sufficient for a down-payment for those who can qualify for an 85% loan-to-value mortgage.

Still, some market observers, including Jones Lang Lasalle, remain sceptical that these types of programmes will have a meaningful impact on the market. In its first quarter 2012 report, the real estate consultancy wrote, "Despite the introduction of rent-to-own schemes, the number of sales transactions happening in the market remained limited (in the first quarter of 2012) and were predominately from Emirati purchasers."

**NEW LAWS:** On the other hand, another factor that could boost the residential sales market, although perhaps not as immediately or as obviously as pricing discounts and rent-to-own plans, would be the passage of real estate laws that have been in the works for several years. As it stands, non-Emiratis are allowed to buy property in so-called investment zones, according to a law passed in 2005. These investment zones include Reem Island, Raha Beach, Al Reef, Yas Island, Saadiyat Island and Al Maryah Island, among other areas. However, a system of property and real estate laws which do not currently compare as favourably to those of neighbouring Dubai – may discourage some foreign investors from purchasing a residence in Abu Dhabi.

This is set to change if new draft real estate laws that are currently under review are passed. The laws introduce a number of new features, including the regulation of both master- and sub-developers; a licensing regime for market participants such as brokers and surveyors; the requirement for certain contractual provisions in sale and purchase agreements, an escrow regime for off-plan sales similar to the one found in Dubai, and strata rules, including a formal process for establishing and registering a homeowners' association.

In the meantime, even before the formal passage of the law some developers, including Sorouh, have already

started to implement features into their contracts that will be compliant with new regulations, including allowing for the establishment of homeowners associations. In a 2010 presentation to owners at the Sun and Sky Towers, Sorouh said that it would remain the owner of common areas until the new law is finalised, but once the new rules are in place, the homeowners association will take over control. This system will ensure that residential owners do not incur any costs related to the commercial or retail owners in a mixed-use development, officials from Sorouh said.

Developers are generally positive when it comes to the strata rules and the formation of homeowners associations, with Asad of Aldar telling OBG, "The finalisation of the strata law will help drive the residential market forward and manage some difficulties that developers face with respect to facility management." Under the new law, the sale and purchase agreement will have certain statutory provisions that will address construction delays, such that statutory penalties will apply if they exceed a certain period.

New projects coming onto the market have led to a drop in prices

**RESIDENTIAL LEASING:** The rental market presents a picture not dissimilar to that of the sales market, with supply rising and prices falling. In the rental segment tenants are looking to upgrade their apartments, sometimes without incurring an increase in cost.

According to Jones Lang Lasalle, annual rents for a prime two bedroom apartment fell by 1% in the first quarter of 2012 to reach Dh120,000 ($32,700), with the year-on-year decline hitting 11%. The real estate services firm noted that the softening of rents was worse in Al Raha Beach and on Reem Island, due to the fact that these are rentals from individual unit owners rather than a single developer. The presence of multiple landlords in the same building or complex tends to push down prices, with individual owners competing to attract tenants. An April 2012 analysis provided by Cluttons came to conclusions broadly similar to those of Jones Lang Lasalle, although it noted that declines in rental prices were worse in suburban areas like Khalifa A, Al Raha Beach and Al Raha Gardens. According to Cluttons, as of the first quarter of 2012, the price for a studio rental in Khalifa A had hit Dh25,000 ($6800) per year, while 3-bedroom villas in Al Raha Gardens were being let at Dh155,000 ($42,000) per year. This represents a decline in rental values of 10% in these areas.

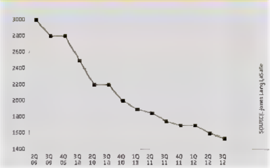
The weakness in demand can also be seen in other steps that landlords are taking to attract tenants, beyond reducing nominal prices. For example, as of December 2011 incentives to rent at the Shams development on Reem Island included 10% cash back or six weeks of free rent. Owners are also trying to accommodate potential tenants in ways beyond lower prices for example by providing better facilities management. As Abdulla Saeed Al Qamzi, the managing director of Khidmah, told OBG, "With downward pressure on rents there is a lot of competition and so different landlords are using different methods to incentivise tenants. Professional facilities management is a very good draw in this regard."

One factor that may ultimately slow the downward trend in pricing is the fact that the differential in pricing between Dubai and Abu Dhabi is narrowing. In the past, many people working in Abu Dhabi instead chose to live in Dubai, given that housing there was more plentiful and less expensive. In September 2012 the Secretariat General of the Abu Dhabi Executive Council announced that all government employees must live in the emirate within one year. This could provide some relief for landlords looking for tenants.

**EMIRATI HOUSING:** While the residential market at the high end is over-supplied, the middle- and lower-income segments of the market have not been served by the real estate industry, according to some developers. Another area that represents an alternative area of activity for developers is housing for UAE nationals. Since the formation of the UAE, the government of Abu Dhabi has placed a focus on planning and building modern homes for Emirati families, and the delivery of these housing communities forms a central part of Plan Abu Dhabi 2030. "The government is doing an excellent job in providing state-of-the-art infrastructure and thus enabling adequate housing for UAE nationals," Al Nowais told OBG. "The population is young and

While the emirate's high end residential market is generally over-supplied, the middle- and lower-income segments have not been as well served and there is room for expansion.

Average Grade A office rents, 2009-12 (Dh per sq metre per year)



**Total office space in Abu Dhabi City increased from 2.38m to 2.46m sq metres during the fourth quarter of 2011. It then jumped to 2.73m sq metres as of the third quarter of 2012 with office vacancy rates increasing from 23% to 37% over the same period**

growing, with significant household formation and a quest for a new lifestyle, so this is a priority area." The government was developing housing projects at Al Falah, Yas Island and Watani in mid-2012. The Al Falah development is on a 12.5m-sq-metre site east of Abu Dhabi International Airport and was designed by Aldar.

Upon completion, expected by the end of 2012, it will provide 5000 homes to Emiratis, as well as schools, mosques and other community facilities. The first phase of the second project – known as Yas Island Villas – will consist of 500 villas built over a 780,000-sq-metre site and is being carried out by local firm Royal Development Company. This self-contained community will also include commercial and retail facilities. Meanwhile, Sorouh will build more than 2600 villas as part of the Dh5.4bn ($1.5bn) Watani project. As of April 2012, the developer announced that it has nearly completed the first phase of the project, delivering nearly 1400 units.

For developers such as Aldar and Sorouh, building national housing may be less profitable than carrying out commercial projects, but it does provide a steady stream of revenue, an important factor during this period of limited growth in the market. Indeed, Aldar experienced some financial troubles during 2011, twice selling assets to the government. These included the Ferrari World theme park on Yas Island, the Central Market project on Abu Dhabi Island (subsequently renamed the World Trade Centre) and several hundred homes at Al Raha Beach. In total, the government pledged nearly Dh28bn ($7.6bn) to the developer. Additionally, Aldar announced in March 2012 that it was studying the possibility of a merger with Sorouh.

**OFFICE:** As in the residential segment, a number of key projects came onto the office market during 2011 and early 2012, including Etihad Towers, Sowwah Square and Al Khubairat Tower (also known as Al Ain Tower). According to a report from Jones Lang LaSalle, the total office stock in Abu Dhabi City increased from 2.38m to 2.46m sq metres during the fourth quarter of 2011, rising to 2.73m sq metres as of the third quarter of 2012. The report also noted that office vacancy rates increased from 23% to 37% over this period.

While prices in 2012 are a far cry from the levels that prevailed in late 2008, the rate of decline since then seems to have slowed, with annual rent for grade-A office space decreasing from Dh1700 ($460) to Dh1540 ($420) per sq metre between the fourth quarter of 2011 and the third quarter of 2012, according to Jones Lang LaSalle. Cluttons has estimated higher prices for grade-A office space at Dh1800 ($490) to Dh2000 ($540) per sq metre. However, both firms have overall similar conclusions when it comes to office rents, warning that prices for grade-A properties will continue to decline in 2012, but it will be a more gentle fall than in grade-B space, where the drop is expected to be severe. Some landlords have been under pressure in this environment but there are bright spots, including Sowwah Square, according to Paula Walshe, the associate director at the

Abu Dhabi office of Cluttons. The first of four towers at Sowwah Square, a development on Al Maryah Island, was delivered in March 2011, with three additional towers handed over during the first quarter of 2012. Tenants have already moved into the first tower, which has been more than 85% leased.

Part of the reason for the success at Sowwah Square has been the developer's willingness to be flexible, Walshe told OBG. It will work with potential clients, for example by splitting floors or offering rent-free periods. The development's facilities are also attractive, including ample parking and a retail facility (The Galleria at Sowwah Square) that is expected to open in August 2013. Sowwah Square has, accordingly, been able to attract high-quality international tenants, including law and finance companies. "For international corporate clients looking at Abu Dhabi, Sowwah Square is probably the first stop," she said.

The types of incentives offered by Sowwah Square are not usual these days in Abu Dhabi, with many landlords offering rent-free periods and fit-out allowances. According to Jones Lang LaSalle, the rise of such incentives increased during 2012. A challenge over the year ahead will be adapting to the addition of more stock on the market, with new space expected from Trust Tower (at Aldar's World Trade Centre project), Nation Towers and International Tower at Capital Centre.

However, one factor that could help the market for office space is the 2011 decision by the Abu Dhabi Municipality and the Department of Economic Development to ban commercial operations in villas and other residential premises. Businesses were previously allowed to operate in residential villas, but complaints about traffic and parking prompted the new rules, according to public statements by officials from the municipality. The new regulation has gone into effect slowly, with existing firms required to move to purpose-built commercial space as a pre-requisite of renewing their trade licences. According to Hamad Abdulla Al Shamsi, the CEO of International Capital Trading, a real estate development company, the rise of villas by businesses has had an impact on both the residential and office segments of the market. "Many businesses are located in villas rather than commercial buildings. This has pushed up residential prices by leading to a shortage of supply. I believe companies will begin to move into commercial towers which will free up this capacity and also utilise some of the available office space that has come online," he told OBG. It is unclear what will happen to the villas used for commercial purposes, but it is possible there could be demand in the mid-range residential market for these dwellings.

**AREAS OF GROWTH:** With both the office and residential segments already quite saturated, two other areas of the real estate market – retail and industrial – remain relatively less developed, although both are expanding. According to Jones Lang Lasalle, as of the third quarter of 2012 Abu Dhabi had 1.67m sq metres of retail space, of which around half was accounted for by malls (see analysis). Rents at the emirate's malls depend on location, with those located in outlying areas charging lower rates than on Abu Dhabi Island. Pricing in suburban areas has come under some pressure and owners are increasingly using incentives such as free periods to attract tenants. Market conditions on Abu Dhabi Island are better, although prices are expected to decline due to growing competition from new destination malls located off Abu Dhabi Island.

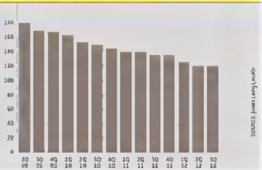
Indeed, mall space will increase by around 700,000 sq metres by 2015, according to global property specialists DTZ. This space will be a combination of dedicated malls – like Deerfield's Townsquare – as well as retail space in mixed-use developments, such as the Boutik Mall at the Sun and Sky Towers on Reem Island. But by far the largest mall currently under development is the Yas Mall, which will have 235,000 sq metres of retail space and some 700 retail and food units. When it opens in 2013, Yas Mall will become the second-largest mall in the UAE behind Dubai Mall.

Industrial real estate is perhaps even more underdeveloped than the retail segment, with the potential for growth substantial given the government's focus on establishing Abu Dhabi as a centre for industrial activity and transport (see analysis). Some warehouse and manufacturing space is currently available at industrial areas such as Mussafah and the newer Industrial City of Abu Dhabi (ICAD), but it is relatively limited. DTZ has reported that the total warehouse stock in Abu Dhabi stood at around 9.46m sq metres as of 2010, with only 6% of that total counting as high-quality product. Perhaps not surprisingly, given this relatively low supply and growing demand, new industrial real estate developments continue to come onto the market.

**OUTLOOK:** Challenging months may lie ahead for Abu Dhabi's developers and landlords, particularly for residential and office space, as more stock comes onto the market, potentially further weakening rents and sales prices. Still, as pricing comes down, the emirate may start to appear more attractive compared with Dubai, which could mean more tenants, both residential and commercial. There are pockets of activity that look promising, including industrial and, to a lesser extent, retail. The anticipated passage of new real estate laws could also improve the situation in the longer term.

Abu Dhabi's retail and industrial segments are expanding. Mall space is expected to increase by some 700,000 sq metres by 2015, while industrial real estate has much potential for growth thanks to the government's focus on establishing the emirate as a centre for industrial activities and transport.

Average 2-BR rents, 2009-12 (Dh 000 per year)



Demand for high quality industrial real estate is likely to increase

# Hive of industry

## Supply of warehouse space is set to expand with demand in the coming years

With the development of an industrial base forming an important component in the emirate's overall economic diversification strategy, the demand for high quality industrial real estate including warehouse space is expected to rise. While the supply of this type of product has historically been limited in Abu Dhabi the market has begun to recognise the profit opportunity and supply is expanding accordingly.

**ECONOMIC ZONES:** A key plank of the government's infrastructure programme has been the development of dedicated industrial zones that are closely integrated with the transport network. These include the main industrial zone at Mussafah, which covers 14 sq km, as well as the newer Industrial City of Abu Dhabi (ICAD) development, which is managed by the Higher Corporation for Specialised Economic Zones (generally known as ZonesCorp). ICAD is being developed in several phases, with three already completed.

The government has more recently signalled its intent to support further industrial development. In January 2012 the Executive Council, the emirate's primary decision-making body, announced that it had approved the budget for infrastructure works for Khalifa Port and the development of the industrial zone called Kizad. The latter, a 417-sq-km zone that will target a variety of industries including aluminium, steel, petrochemicals and pharmaceuticals, is located next to the Khalifa Port, with close access to the E11 highway that runs between Abu Dhabi and Dubai. In December 2011 Khaled Salmeen, then the executive vice-president of Abu Dhabi Port Company announced that 30 industrial projects valued at $5bn would be built at Kizad within three years.

**LOGISTICS:** Kizad is also developing a warehouse and logistics park, which will include both pre-built warehousing space as well as land lots for investors to construct their own facilities. In May 2012 officials from the industrial zone announced that they would begin pre-leasing warehouse space in both its free zone and non-free zone areas, with 105 units spread over 220,000 sq metres of land scheduled for completion in 2013.

The pre-built warehouse space is available in modular units that begin at 1000 sq metres, with sizes going up to 21,500 sq metres in the free zone area and 11,000 sq metres in the non-free zone area. The availability of large units is likely to be an advantage in a market where most pre-built stock is quite small. Construction of this first wave of pre-built warehouses – there are three phases planned for the warehouse and logistics park, with some 400,000 sq metres of land to be covered in total – began in mid-2012, with completion expected by the end of the second quarter 2013.

In addition to pre-built warehouse space, Kizad is also leasing land for occupiers and logistics firms to develop custom structures, with these plots ranging in size from 15,000 sq metres to 500,000 sq metres.

**LIMITED SUPPLY:** The new warehousing developments at Kizad could potentially have a major impact on a market that is at present still quite small. To put the figures from Kizad in perspective, according to a report from DTZ research, the total warehouse stock in Abu Dhabi stood at 9.46m sq metres as of 2010.

The global property consultancy also noted that its calculations showed that total demand stood at 8.92m sq metres, leaving a small buffer of around 540,000 sq metres, or 5% of the total. Moreover, DTZ said that only 6% of existing stock counted as high-quality product, adding that much of this space was occupied, leaving an undersupply in this sub segment. According to El Fatih Said, the CEO of Abu Dhabi Business Hub (ADBH), there is still a gap in the market for grade-A warehouses and industrial space. "This is a segment of the real estate industry that was overlooked during the construction boom in recent years, but still deserves significant attention," he told OBG.

However, like in those more popular areas of the market, rents continued to fall across the industrial segment in the wake of the global economic crisis, from around Dh1900 ($515) per sq metre in 2008 to approximately Dh750 ($205) per sq metre in early 2011, according to international property consultancy CBRE.

The Executive Council announced in January 2012 that it had approved the budget for infrastructure works for Khalifa Port and the development of Kizad industrial zone, which will also house a warehouse and logistics park.

Rents have since started to stabilise, with Said telling OBG that his company's warehouse pricing has been fairly steady since 2010. ADBH currently owns and manages a development of office complexes and industrial warehouses at ICAD, with its facilities covering an area of 298,000 sq metres on land leased from ZonesCorp. Unlike in the case of office and residential real estate, the industrial real estate market is not over supplied. He noted his company is presently developing more built-to-suit office and warehouse space, as the business park nears 100% occupancy and continues to receive four or five inquiries a month.

**ADDED SUPPLY:** Perhaps not surprisingly, given this high demand and relatively low supply, new industrial real estate developments continue to come onto the market. A recent example was the Al Markaz development from Waha Land, a subsidiary of publicly listed investment firm Waha Capital. In April 2012 the company announced that it had commenced delivery of the initial units of the first phase of the development, a light industrial real estate project 25 km south of Abu Dhabi City that is being built on a 0.6-sq-km plot of land that was originally provided by the government of Abu Dhabi.

The first phase of the Al Markaz development – four phases have been planned – includes 220,000 sq metres of warehouses, 285,000 sq metres of light industrial units and 90,000 sq metres of small light industrial units. Serviced plots are available for tenants to provide their own warehouse or factory or Waha Land can construct a purpose-built facility to customer specifications. Al Markaz is providing the internal infrastructure necessary to link these plots together, as well as the external infrastructure to tie the development into the local transportation grid. Indeed, one of the selling points for Al Markaz is its nearby access to major transport links such as Mussafah Port, Khalifa Port, the E-11 highway and the Tarif highway. It is also close to the site for a terminal for the 1200-km Etihad rail network, which will link the UAE with Saudi Arabia and Oman.

Demand for units at Al Markaz has been strong, with the company noting shortly after its market launch in April that it was already in discussions with international, local and regional companies for leases of 15-25 years. Then in June, the COO of Waha Land told the local press that 5-6 local clients and two international tenants had been signed, a signal of the strong demand for prime industrial and warehousing space.

"While some segments of the real estate sector have been oversupplied in recent years, the industrial real estate market still has healthy room for growth," Salem Al Noaimi, CEO of Waha Capital told OBG. "Development of new infrastructure and strong growth in regional trade are not only positive drivers for the logistics industry, they are also changing the industry's dynamics in favour of modern, well-designed facilities in specific locations." Moreover, with major projects like Kizad at the forefront of the government's agenda, this trend seems likely to continue, creating an opportunity for investors.

The industrial real estate market is not over supplied. With high demand and relatively low supply, new developments continue to come onto the market.

Three urban development plans have been published

# Planning for the next generation

## Urban growth plans to ensure sustainable development

The authorities in Abu Dhabi have a long-term vision for the emirate, one that encompasses not only economic diversification but also carefully orchestrated urban growth that is sustainable and reflects the local culture. The Urban Planning Council (UPC), a government agency established by Emiri decree in 2007, plays an important role in this process, preparing overarching blueprints for development that can then be implemented by local authorities.

**HISTORY:** According to its mandate, the UPC "defines the shape of the emirate", overseeing development both in the capital city, as well as in the regions of Al Ain and Al Gharbia. The council coordinates with both public and private sector entities, often working directly with developers and their consultants at different stages of a project. The UPC also ensures that developers adhere to all relevant regulations and guidelines.

To date, the council has published three major urban development plans: Plan Abu Dhabi 2030: Urban Structure Framework Plan; Plan Al Ain 2030 and Plan Al Gharbia 2030. The first of the three, introduced in 2007, is focused on Abu Dhabi City, specifying land uses, building heights and transportation plans. This plan also provides for a substantial amount of new residential developments for Emiratis.

**RECENT UPDATES:** Similarly, Plan Al Ain 2030, which was first rolled out in 2009, takes into consideration projected economic and demographic trends for Al Ain, laying out some overarching principles for the region's development. This plan was followed up with the more detailed Wasat Madinat Al Ain Plan, focused on the urban centre of Al Ain City, and more recently with the Development Plan for Urban Areas in Al Ain, which was introduced by the UPC in March 2012. This latest document identifies a series of planning policies and projects for the region's 64 districts that surround the downtown heart of Al Ain City.

The Urban Planning Council's plans lay out overarching principles for the region's development, while also specifying land uses, building heights and transportation schemes, as well as identifying varied planning policies and projects

According to a public statement by Amer Al Hammadi, the director of planning and infrastructure at the UPC, implementing the new urban areas plan for Al Ain will bring additional facilities to the area while still ensuring the historical features of the city.

"It ensures a high quality of life for all residents by providing adequate community facilities, such as schools and clinics, along with a number of parks and plazas, and identifies development policies that will protect the character of Al Ain's neighbourhoods and facilitate new development opportunities," he said.

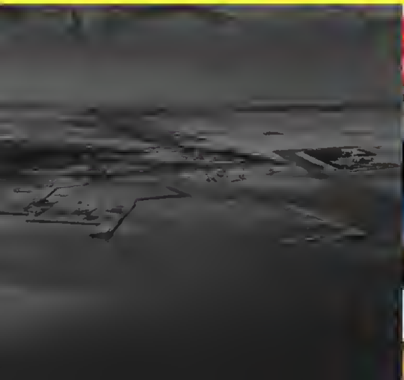
**PREP WORK:** To prepare the Al Ain Development Plan for Urban Areas, the UPC carried out primary research, including a survey of 11,000 households in the emirate and analysis of demographic data provided by Statistics Centre – Abu Dhabi. The UPC also relied on its in-house geographical information systems department, which provides spatial planning analysis that can be used to support the planning process.

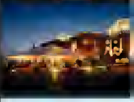
Indeed, with the emirate experiencing a rapid pace of development, having accurate and timely information at hand can be very important, according to Khaled Al Melhi, the CEO of Bayanat, an Abu Dhabi-based company that provides geospatial data products and services to both government and private sector entities. "The changing landscape of the UAE places great emphasis on the need for reliable and up-to-date topographic digital data and maps in order to effectively and timely manage those changes," he told OBG. Al Melhi added that there are a variety of applications for this kind of information, noting that the government can use geospatial data to better develop tender proposals for major infrastructure projects such as rail roads and pipelines. The uses in the private sector are similar, including preparation for real estate projects.

While the emirate has undergone steady and manageable growth since the discovery of oil in the mid-20th century, recent changes such as the introduction of private ownership of land have created the potential for more rapid growth. However, authorities in the emirate have taken a number of steps, including the formation of the UPC, to ensure that growth is sustainable and in line with the government's priorities.

# Al Gharbia

Emphasis on sustainability in regional development
Great strides in alternative energy sets Abu Dhabi apart
A new railway connecting the emirates is under way
Schools and real estate development attract residents
Expansion of tourism in the next decade is a main goal





Making use of local resources is the foundation for development

# Sustainable change

## Plans to diversify the local economy and provide more services

Sustainable development is key to plans for the western region, which aims to expand the area's economy by 100% without harming the natural environment or imposing on its cultural heritage

As government plans come to fruition, Al Gharbia – the western region of Abu Dhabi – will be a model of responsible and sustainable development for desert and arid coastal environments. The goal for the region is to accommodate appropriate growth, while offering its residents a high quality of life within the environment's carrying capacity.

Guided by a master development framework known as Plan Al Gharbia 2030, the region's economy is forecast to double in size, and the population is to increase from 185,000 in 2010 to 450,000 by the end of the plan. Already a hive of activity in the energy and industrial sectors, other areas of the economy – notably tourism, logistics and agriculture – are proactively being positioned for healthy growth.

Proof of the region's potential can be seen in the large and growing number investments: the value of current projects in Al Gharbia is estimated to be up to $100bn, according to Mohamed Hamad bin Azzan Al Mazrouei, the director-general of the Western Region Development Council (WRDC).

**GOVERNMENT LEADERSHIP:** Development policies picked up pace with the establishment of the WRDC in 2006, which has a primary objective to promote sustainable economic development in the region. Working alongside the Western Region Municipality (WRM) and other government entities, it endeavours to enhance health and education facilities, provide social and employment programmes, support infrastructure development and promote tourism, as well as attract new investment. "To bring more foreign investors to Al Gharbia, WRDC has integrated investment packages and relevant statistics for interested parties," Al Mazrouei told OBG.

**FRAMEWORK:** The strategic policies within Plan Al Gharbia 2030 which is a regional structure framework plan, provide a way of satisfying the needs of a growing population and of reversing the sometimes adverse trends in development. The framework's policies are firmly grounded in the three basic elements of sustainability: the natural environment, economic development and cultural heritage.

The overarching development strategy of Plan Al Gharbia 2030 was released in 2010 – the end result of cooperation between the Abu Dhabi Urban Planning Council (UPC), the WRM, the WRDC and other major public and private sector entities. But in addition to providing an overall vision for development, the plan aims to define specific roles and projects for each of the of the region's seven major communities, namely: Madinat Zayed, Liwa, Ghayathi, Ruwais, Mirfa, Sila and Delma Island.

The regional structure framework plan provides conceptual solutions to shape the growth of Al Gharbia over the next quarter century. These solutions address the major issues that shape urban form – the environmental context, land use distribution, transportation infrastructure and the network of connected open spaces – and then proceed through more detailed analyses at finer scales.

A number of investment opportunities have also been drawn from Plan Al Gharbia 2030, and were presented in the Investment Roadmap released in 2012. Providing a sector based approach to developing the region, it highlights principal growth areas in key economic sectors such as energy, petrochemicals, agriculture, tourism and real estate.

The region is home to extensive hydrocarbons reserves, 7% of global oil reserves and 3% of natural gas deposits. Already responsible for 40% of the emirate's GDP, significant investments are being made to expand the hydrocarbons sector

**ENERGY:** Beneath the expanse of Al Gharbia lies vast hydrocarbons wealth equating to around 7% of the world's oil reserves and 3% of natural gas reserves. This sector is currently the main driver of the regional economy, contributing some 40% to the emirate's GDP. The government is seeking to boost oil production and bring new sources of gas on-line.

The Shah gas field near Liwa is witnessing one of the largest ongoing projects, a $10bn development of sour gas reserves by Al Hosn Gas, a joint venture formed in 2010 between the US's Occidental Petroleum and state-owned Abu Dhabi National Oil Company (ADNOC). "Al Gharbia will benefit directly from

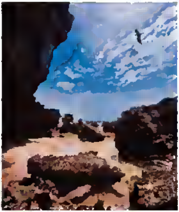
this project, with the introduction of new companies and facilities operating in the region," Saif Al Ghafli, the CEO of Al Hosn Gas, told OBG, explaining that not only the energy sector but also transport, materials and logistics are set to gain from the project. "Hiring people from this area is a priority," he added. Similar benefits are expected from the expansion of Abu Dhabi's largest refinery at Ruwais, as well as from the onshore facilities being constructed nearby as part of the Integrated Gas Development (see Energy chapter).

**ALTERNATIVE SOURCES:** Hydrocarbons aside, Al Gharbia is also the primary arena in which Abu Dhabi is working to develop alternative sources of energy. Four nuclear energy plants are to be built in Baraka by the Korean Electric Power Company (KEPCO): the first is to come on-line in 2017, followed by one additional facility completed each year up until 2020. The first of these reactors by itself is to create more than 2000 jobs, of which 60% are expected to be allotted to UAE nationals, according to the Emirates Nuclear Energy Corporation (ENEC). Nuclear energy will provide baseload electricity to power the growth of the UAE while saving 12m tonnes of carbon dioxide emissions each year. Concurrently, KEPCO and ENEC are planning to sponsor a skills development programme for young recruits from the area. Beyond the reactors themselves, new roads and supporting infrastructure will need to be constructed and ultimately serve the surrounding areas.

By the time nuclear power hits the grid the region will also be harnessing the sun's energy. Scheduled to come on-line by the end of 2012, the Shams 1 project is a 100 MW concentrated solar power plant under development by Mubadala subsidiary Masdar, France's Total and Spain's Abengoa Solar. As the government pushes to increase the share of renewable energy to 7% of Abu Dhabi's generation capacity by 2030, Shams 1 will pave the road for the development of further solar projects in the future.

**PETROCHEMICALS:** Further west, in the city of Ruwais, two massive industrial developments are being watched by petrochemicals executives throughout the world. Ranking as one of the world's largest chemicals investments, the Madeenat ChemaWEyaat Al Gharbia (MCAG) project is in its first phase of development. This includes the building of an aromatics complex, which will begin to produce benzene, paraxylene and mixed xylenes from naphtha feedstock by 2015.

Complementing this new addition to Ruwais's industrial environment is Borouge, a producer of polyolefin. Established in 2001, the company has in recent years begun to expand. Once this growth is completed, which is expected by the end of 2013, Borouge is set to create the largest integrated polyolefin complex in the world. In addition to generating significant employment opportunities in the local market, in 2011 the project was awarded multimillion dollar contracts for engineering, procurement and construction by international contractors.


The region's long-term development plan is grounded in sustainability

At the start of 2012 the Executive Council, the primary policymaking entity in the emirate, gave the go-ahead for two new industrial zones in Al Gharbia, which are to be developed by state-owned Higher Corporation for Specialised Economic Zones (known as ZonesCorp). The first, which will cover 14 sq km of land at Ruwais, will feature industries such as oil and gas services, petrochemicals, plastics, construction and logistics. The second will be at Madinat Zayed and cater to oil and gas services, food processing and light manufacturing.

**TRANSPORT:** By 2017, Al Gharbia will also be home to the first phase of the planned 1200-km Etihad Railway, the national rail system that is set to link the country together, from one emirate to the next. In October 2011 Etihad Rail, the master developer of the project, awarded the civil and track works for the first portion of the rail network, which will run from Liwa to Ruwais Port, to a consortium including the Italian giants Saipem and Technimont, in addition to Abu Dhabi's Dodsal.

This part of the rail network, due to be completed in 2014, is for the service of the oil and gas and petrochemicals sectors, allowing sulphur extracted from sour gas at the Shah and Habshan fields to be transported to Ruwais for export, passing through the towns of Mirfa, Tarif and Madinat Zayed en route.

Along with expansion of hydrocarbons, energy development in the region will focus on plans for solar and nuclear power plants

Al Gharbia is key to the emirate's broader push to develop alternative sources of energy

**Real estate space by segment, 2010 & 2020**

| | Office ('000 sq metres) | | Retail ('000 sq metres) | | Hospitality (no. of rooms) | |
|---|---|---|---|---|---|---|
| | 2010 | 2020P | 2010 | 2020P | 2010 | 2020P |
| Sila | 12 | 18 | 4.3 | 17 | 75 | 228 |
| Dalma | 4.6 | 6.9 | 5.2 | 8.5 | 45 | 72 |
| Ghayathi | 13.3 | 19 | 9.6 | 21.1 | 15 | 24 |
| Ruwais | 1.3 | 26.4 | 9.3 | 10.8 | 150 | 204 |
| Mirfa | 1.5 | 34.3 | 6.2 | 23.6 | 175 | 291 |
| Madinat Zayed | 43.3 | 65 | 20.8 | 55.2 | 15 | 24 |
| Liwa | 0.68 | 50.4 | 7.4 | 21 | 153 | 257 |

SOURCE: WRDC, Investment road map

Construction of a new nationwide railway alongside residential and commercial real estate development will position Al Gharbia to benefit from growth in the transport and logistics sector

The next phase, which is due to be tendered in 2012 and completed in 2016 or 2017, is to link Al Gharbia and Abu Dhabi with Dubai. An extra link is expected to follow that will connect the emirate of Fujairah a year later. Initially, the railway will concentrate on freight traffic, but passenger services are expected to be introduced in due course.

**LOGISTICS:** Along with an increase in tourism, the imminent arrival of the new mobility of a nationwide public transport line is likely to drive growth in the logistics sector in Al Gharbia. "We expect the railway to alleviate congestion on the main international highway (E11) and provide a fast and competitive alternative for the region's freight agents," said Musabah Al Marar, the acting director-general of the WRM. Logistics and tourism should further benefit when the line is eventually linked to other Gulf nations, such as Saudi Arabia and Oman.

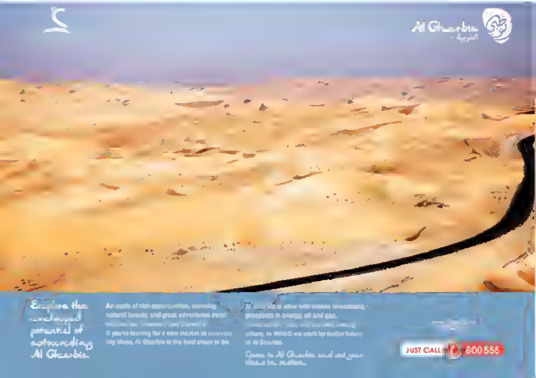
New roads are also helping to put Al Gharbia on the map. Among a host of infrastructure projects for which the Executive Council confirmed funding at the start of 2012 is the expansion of part of the 350-km E11 highway that will begin in Al Mafraq on the outskirts of Abu Dhabi City and make its way along the coastline to Ghuwaifat at the UAE-Saudi border. The E11 project will involve the construction of 15 new overhead interchanges.

**TOURISM:** At a time when unprecedented numbers of visitors are coming to Abu Dhabi and tourist spending is expected to rise dramatically, Al Gharbia is in a position to thrive. The region is home to seven beach resorts and desert retreats, including the luxurious Qasr Al Sarab and Desert Islands Resort & Spa on Sir Bani Yas Island. In fact, Plan Al Gharbia 2030 is looking to more than triple the hospitality sector's contribution to GDP between 2010 and 2030.

**FESTIVALS & SPORT:** Several annual festivals represent an important sub-sector of the emirate's tourism industry, many of them attracting tens of thousands of visitors each year. "We are getting a lot of international as well as Arab tourists coming to traditional events like the Liwa Date Festival and the Al Dhafra Camel Festival," Al Mazrouei told OBG.

In terms of sporting events, for which Abu Dhabi is a centre in the Gulf region, there is the Al Gharbia Watersports Festival at Mirfa, which is one of the WRDC's initiatives, as well as the motor vehicle events of Liwa International Festival (Tel Moreeb) and the Abu Dhabi Desert Challenge (see analysis).

**REAL ESTATE:** The WRDC's Investment Roadmap envisages that there will be a demand for more than 10,000 residential units by 2020. They are expected to be delivered in multiple phases up until that point, principally in the industrial city of Ruwais, the business capital of Madinat Zayed, Sila and Liwa. On top of residential real estate, the WRDC's vision indicates that there will be a need for around 10,000 sq metres of commercial and retail space in the region.



The development of additional residential units in the region is already under way, thanks to the National Housing Programme launched by the UPC. As part of this project, the Abu Dhabi-based developer Sorouh will construct 448 villas in the western town of Sila as part of a mixed-use complex that will feature a mosque, school, women's centre and several retail outlets alongside the housing units.

The development of educational facilities in 2011 and 2012 has been also fuelling demand. In February 2012 the Executive Council approved the construction of residential compounds for teachers throughout Al Gharbia.

**AGRICULTURE:** With the government looking to address the issue of the emirate's food security as a matter of urgency, stock farming and agriculture are both set to remain prominent features of Al Gharbia's landscape and development plans.

It may come as a surprise that Ghayathi, buried deep in the desert, is home to a population of whom 48% are employed in agriculture. In Mirfa that figure stands at 21%, while at Madinat Zayed it is 30%. In Liwa, the centre of the emirate's date production, 78% of the population works in the sector. By 2030 the government wants to see agricultural GDP more than doubled from its current level.

At Liwa's 2012 Date Festival – which attracted 70,000 residents and visitors – farmers from Al Gharbia won international awards in the best production and distinguished producers categories. Given that the UAE was recently ranked as the world's leading exporter of dates, related investments will continue to reinforce this strong reputation.

There is also real potential for growth in the provision of clean and sustainable agricultural technologies to existing farms. Sustainable agriculture is a priority for the government. "The local agriculture industry is being revamped to maximise resources in terms of water and soil in order to increase the product value per unit of resources consumed," Rashed Mohamad Al Shariqi, the director-general of the Abu Dhabi Food Control Authority, told OBG. New technologies, such as sub-surface irrigation systems, fertilisers and machinery, have been marketed to the farmers of Al Gharbia and throughout the emirate at agricultural exhibitions held in 2010 and 2012.

**PUBLIC SERVICES:** The WRDC recognises that sustainable economic development will not come from

**Population growth, 2010 & 2030**

| | 2010 | 2030P | CAGR (%) |
|---|---|---|---|
| Sila | 9300 | 17,500 | 3.1 |
| Dalma | 5500 | 8300 | 2 |
| Ghayathi | 14,000 | 21,000 | 2 |
| Ruwais | 28,000 | 130,000 | 7.2 |
| Mirfa | 17,300 | 75,000 | 7 |
| Madinat Zayed | 33,900 | 61,000 | 2.9 |
| Liwa | 24,900 | 55,000 | 4.7 |

SOURCE: WRDC, Investment roadmap

Nearly half of the region's population is employed in agriculture, and up to 78% of residents in some areas

money alone. One of the major challenges will be to provide the necessary social infrastructure and services to attract permanent residents back to Al Gharbia. According to the latest available figures from 2010, Al Gharbia accounts for 60% of the emirate's land mass, but just 9% of its population.

Efforts to promote sustainable agriculture in the region are in line with the goal of protecting Al Gharbia's natural environment

If Plan Al Gharbia 2030 is realised, the population of the region is forecast to grow from 185,000 in 2010 to more than 450,000 by 2030, at which point it will represent around 15% of the emirate's total population. An additional challenge will be to retain and attract an Emirati population: according to statistics from Statistics Centre – Abu Dhabi, Al Gharbia accounted for only 3.5% of total citizen births in 2010, while the bulk were in Abu Dhabi (53.4%) and Al Ain (43.1%). Still, the government hopes that by enhancing the hard and soft infrastructure, more families will be encouraged to settle in the region.

Steps have been taken to further expand the public services offering in Al Gharbia, including the establishment of one-stop-shop facilities known as Tamm centres. Offering more than a dozen government services that span immigration to waste management, four of these centres have so far been completed, and another two are soon to open. "A current project is the Multi-Task Employment Programme, which is designed to train locals to work in any of the kiosks at a given Tamm centre," Al Marar told OBG. "The first stage is complete, but we now need to make the services faster and more efficient," said Mohamed Al Hosani, the director of the regional development division at the WRDC.

**EDUCATION:** Bringing new schools and universities to the region is another way of encouraging residents to return. After two new schools began classes in Al Gharbia in late 2010, the 2011/12 academic year has seen two refurbished schools open and a further 12 merged, which has allowed the students to be moved to their newer and highest-quality facilities. "The private sector has a large role to play in

Providing social infrastructure to sustain population growth in the area will be crucial as it is expected to grow from 185,000 to 450,000 people in just 20 years.

Linking tertiary education programmes to the needs of employers will help build up the Emirati workforce

Opening new schools and universities is a priority to ensure that Al Gharbia will be a viable place to both live and work for those considering migrating to the region.

the provision of new indoor facilities at schools," said Al Marar at the WRM.

Upgrading soft educational infrastructure alongside new and enhanced buildings is also under way. The region's new schools conform to Abu Dhabi's New School Model which was introduced in 2010 to place increased emphasis on critical thinking, IT skills and English language, among other aims.

The private sector is also playing a role here. "Many locals are willing to pay the extra fees for private education," said Al Marar at the WRM. In collaboration with Glenelg Country School in the US, the Abu Dhabi National Oil Company has since 2008 established two branches of the Glenelg School in Al Gharbia, in Ruwais and Madinat Zayed. "As well as locals, the private schools are targeting the more permanent staff of the compounds used by employees of the oil companies at Ruwais," added Al Marar.

**TERTIARY PROVISION:** The government is also pushing to increase both the quantity and quality of tertiary education options in the region. At present, Al Gharbia hosts the Higher Colleges of Technology at Madinat Zayed and Ruwais, as well as the Baynounah Institute of Science and Technology in Madinat Zayed. Abu Dhabi University and Zayed University both announced in 2011 that they are considering opening branches in Al Gharbia. All things being equal, Zayed University is likely to establish itself in the region as part of a complex of vocational training institutes and universities that is currently under development at Madinat Zayed.

**EMPLOYMENT:** The private sector has again been playing an important role in helping Al Gharbia's youth enter the workforce. The WRDC is partnering with employers in key industries to assess what courses would best provide students with the skills they need for jobs in oil and gas, alternative energy, transportation, food and other key industries. In August 2011, the WRDC signed a memorandum of understanding with the Abu Dhabi Company for Onshore Oil Operations, part of which was aimed at joint work on education and job placements.

**SUPPORT FOR LOCALS:** These type of sustainability directives are increasingly used by the region's key industry players. "In fact, it is quite familiar to see clauses in big contracts compelling companies to procure from local suppliers and invest in their development," said Al Marar at the WRM, although he added that there is "an urgent need to create some kind of regulatory framework" on the issue.

Alongside these efforts to channel graduates into larger companies, the government is working to foster an environment in which smaller businesses can flourish. The WRDC, WRM and UPC have collaborated in formulating the Estishara programme, which assists start-ups and entrepreneurs with developing project designs, obtaining approval from relevant agencies, sourcing demand, helping to produce feasibility studies and exploring funding possibilities.

Through this scheme, the WRDC has helped to establish several start-ups including a desert hospitality attraction, a poultry farm and a building components manufacturing facility, among others. Further support for Al Gharbia's entrepreneurs was made available in 2011, when the National Bank of Abu Dhabi collaborated with the WRDC to provide financial skills training for aspiring business owners.

**OUTLOOK:** Abu Dhabi's government entities are all joining hands to catalyse economic growth. With a dedicated development council and ample potential funding from the emirate's government, the realisation of the ambitious Plan Al Gharbia 2030 has so far proved to be feasible. Likewise, the private sector is already pouring billions of dollars of new investments into energy, industry and tourism.

Hand in hand, the public and the private sectors are striving to deliver the very best of opportunities to Al Gharbia residents. They are working together to ensure that the western region of Abu Dhabi will be a prosperous place for people to live and raise their families while enjoying high living standards.

The government is offering support for start-ups to build business


Sheikh Hamdan bin Zayed Al Nahyan, Ruler's Representative in the Western Region

# Catalysing growth

## OBG talks to Sheikh Hamdan bin Zayed Al Nahyan, Ruler's Representative in the Western Region

**How will the development projects announced by the Executive Council in January 2012 help enhance the overall infrastructure of the region?**

**SHEIKH HAMDAN:** These projects focus on enhancing social welfare and economic development, which are key goals of Plan Al Gharbia 2030. The announced projects also emphasise the further stimulus of the industrial and energy sectors through the implementation of industrial zones in Al Gharbia. This will create new industrial segments such as petroleum by-products, construction materials, food processing and logistics, thereby catalysing economic growth and new opportunities for local and international investors. This will empower the private sector, and in doing so, create a range of employment and training opportunities for local residents. Ultimately, we expect to be in a position where we will take steps towards the integration of Al Gharbia into the global economy, exporting local products and expertise internationally.

**What impact will the nuclear power plant at Baraka in Al Gharbia have on the local economy?**

**SHEIKH HAMDAN:** The major stakeholders in Al Gharbia include the Emirates Nuclear Energy Corporation, the Western Region Development Council, the Western Region Municipality (WRM) and the Abu Dhabi Urban Planning Council (UPC). They work together very closely to ensure that their regional investments guarantee sustainable growth and provide tangible benefits to the local population through the creation of jobs. We foresee significant economic development, both in the immediate location around the nuclear plant and across the wider region, as new opportunities are created in response to the significant population growth associated with the power plant. These opportunities include increased demand for residential accommodation, high-quality retail offerings, leisure facilities and tourism. Demand for infrastructure and services will also be increased, stimulating local development – from schools and hospitals to cultural and recreational activities and facilities like parks, shopping centres and cinemas. Thus, while the nuclear power plants will create many employment and training opportunities that will directly benefit the local economy, the indirect benefits are expected to reinforce the sustainable economic development of the region.

**To what extent are policies and incentives being adopted to attract foreign investment in the region?**

**SHEIKH HAMDAN:** The Abu Dhabi Economic Vision 2030 provides the framework upon which the Plan Al Gharbia 2030 strategy has been developed. Our goal is to catalyse the development of the region by undertaking careful market and sector analysis. On this basis, we aim to create sustainable investment opportunities for the private sector, both for local entrepreneurs and international investors. By leveraging our relationships with regional stakeholders including the WRM, UPC and the Khalifa Fund, we have been able to ensure that these opportunities are in complete synergy with the planning programmes for the region, and that the supporting finance is available to smaller enterprises. Lastly, thanks to our unique understanding of the local market, as well as the specialist support that we offer to local and international private sector investors, we are able to overcome investment hurdles and create a wider net benefit for the local community as a result of the successful implementation of these projects.

**Has the development of local infrastructure and social services slowed migration to Abu Dhabi City?**

**SHEIKH HAMDAN:** We are proud of Plan Al Gharbia 2030, which is designed to catalyse local economic growth and improve prospects for employment, education and the quality of life. As a result, we expect that Al Gharbia will become an even more attractive place to live and work, encouraging more people to stay in the region. In fact, it is our expectation that people will begin to migrate from Abu Dhabi City and the larger region to Al Gharbia as the result of this development.

New resorts are being developed to meet expected growth in demand

# Desert stars

## Local authorities plan expansion of the region's tourism sector

The region is counting on its local festivals and sporting events to attract a growing number of visitors. Authorities hope to expand the tourism sector from 1.3% of GDP in 2010 to 5.2% in 2020

The development of Al Gharbia contributes to the region's hope to build its tourism sector over the next decade. The sector accounted for Dh200m ($54m), or 1.3%, of the region's GDP in 2010, according to the Statistics Centre – Abu Dhabi. As the targets of Plan Al Gharbia 2030 continue to be met, this figure is expected to hit Dh1.2bn ($327m), or 5.2%, by 2020.

Although it is ambitious, the goal appears to be matched by the scale of touristic developments that are springing up throughout Al Gharbia. In fact, the tourism segment is expanding throughout the emirate, as confirmed by a survey by US-based credit card firm Mastercard, which found that Abu Dhabi will see a 20.7% increase in tourism spending in 2012.

**FESTIVALS:** Emirati heritage is on display at a number of festivals, many of them attracting tens of thousands of visitors each year. "The Liwa Date Festival celebrates an old tradition at the town, whereby residents compete every year to produce the finest dates," Mohamed Al Hosani, the director of the regional development division at the Western Region Development Council (WRDC) told OBG. In 2012 more than 70,000 residents and foreign tourists were expected to watch the date competition and associated activities, including a cooking event, an agricultural tradeshow, artistic displays and folkloric performances.

An annual camel festival at Al Dhafra is also said to be drawing growing numbers from around the region, including Saudis, Qataris and Omanis. "Around 26,000 camels were entered in the events at one recent festival, so there's clearly a lot of work involved. There are the beauty contests and races, the auction, and the trading market. This all requires a lot of services," Al Hosani told OBG. The camels form the centrepiece of the festival, but there is also a saluki dog race, a falconry contest and a photography competition.

**SPORTING:** Alongside these events, the Abu Dhabi Authority for Culture and Heritage (now part of the Abu Dhabi Tourism & Culture Authority) set up some 160 stands in traditional a *souk* to showcase handicrafts.

Entertainment of a more contemporary kind is to be found at the annual Al Gharbia Watersports Festival at Mirfa – arguably the region's leading watersports event, attracting 70,000 visitors in 2010.

Inland, the desert is also ripe for competition: at the Festival of Tel Moreeb (the scary mountain), four-wheel-drive vehicles and motorbikes attempt to scale enormous sand dunes. Similarly, in Abu Dhabi Desert Challenge, rally drivers can score points as part of the international FIA Cross Country Rally World Cup.

**RESORTS:** In addition to events which bring a large number of tourists to the area for a short period of time, a more steady flow of touristic revenue is being earned by a growing number of hotels and resorts, both in Al Gharbia and more generally in the emirate. Combination tour packages could see the region benefit from development elsewhere in the emirate.

For example, following the opening of its third hotel in Abu Dhabi City in mid-2012, Thai hotel developer Anantara plans to offer deals that will send guests out of the city to two of Al Gharbia's foremost hospitality facilities: Qasr al Sarab Desert Resort and Desert Islands Resort & Spa by Anantara on Sir Bani Yas Island. The former is a five-star hotel situated in the Empty Quarter, the world's largest uninterrupted body of sand. The latter is a combined beach resort and safari lodge on an island full of African and Arabian wildlife. Sir Bani Yas Island is one of several desert islands that, according to Plan Al Gharbia 2030, are to receive around $3bn in investment and generate some 6500 jobs. From 2012, Desert Islands Resort & Spa will be home to a 540-guest conference centre and a watersports facility, while the Al Yamm Lodge is due to open in 2013.

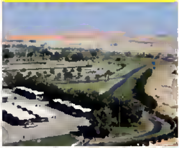
Complementing the Watersports Festival at Mirfa, Al Marfa Pearl Hotels Management is in the midst of upgrading an existing 50-room hotel, adding an extra 50 rooms and new watersports facilities. But as in the case of Sir Bani Yas, this is just the beginning: by 2030 Mirfa is envisaged as becoming a major luxury resort, with beach villas, a racecourse and a centre for tennis

# Al Ain

The growing population drives retail, office and housing
New industries are providing jobs closer to home
Historic and cultural sites attract many tourists
The preservation of nature and culture are key priorities







Once a getaway, Al Ain is now a regular destination for Emiratis

# Down the road

## The second city is set to experience sustained growth

The city of Al Ain is sometimes known as "the Garden City" in the UAE, and with good reason. While the UAE is largely composed of desert, Al Ain sits in the centre of a large oasis that it shares with the neighbouring Omani town of Buraimi and which has sustained human settlement for thousands of years. While Al Ain, one of three municipalities in Abu Dhabi, has shared in the emirate's oil wealth, urban development in the area has been strictly controlled, in part due to building ordinances put in place by the late Sheikh Zayed bin Sultan Al Nahyan, founder of the UAE, who was born in Al Ain and wished to preserve its traditional character.

As a result, the city's buildings are mostly low-rise, and the important date gardens that have nourished it have not been built over. Al Ain's traditional culture, dry climate and natural attractions, including Jebel Hafeet – the highest peak in the UAE at 1200 metres – and its system of irrigation channels, known as *aflaj*, have made it a favourite getaway for Emiratis and expatriates alike.

However, with the introduction the Abu Dhabi Economic Vision 2030, which will implement a series of comprehensive development strategies, the region will transform over the next 20 years. Economic Vision 2030 was drawn up and overseen by Abu Dhabi Council for Economic Development (ADCED) – as well as the Department of Economic Development and the General Secretariat of the Executive Council – alongside Plan Abu Dhabi 2030: Urban Structure Framework Plan, which is supervised by the emirate's Urban Planning Council (UPC).

While Abu Dhabi City has developed into a cosmopolitan metropolis of around 1m people over the past four decades, Al Ain region remains sparsely populated, with 584,800 residents in mid-2011, according to the Statistics Centre - Abu Dhabi. Plan Al Ain 2030, a detailed blueprint for the city's future development, forecasts that the region's total population will increase to 627,000 by 2020 and 1m by 2030.

Al Ain had only 338,000 residents in 2005, but the population is expected to rise to 627,000 by 2020 and 1m by 2030, as new jobs attract immigrants

**INDUSTRIALISATION:** To provide jobs, the authorities have planned further industrialisation. One of the key challenges is to retain Al Ain's character while ensuring the city gets adequate investment.

To achieve this, in 2009 the UPC issued Plan Al Ain 2030. The key principles behind Plan Al Ain 2030 are safeguarding the city's oasis character, natural environment and high quality of life, while at the same time promoting sustainable economic development. The plan envisages maintaining the city as an Arabic cultural homeland, stating "Al Ain will embody its role as the founding source of the emirate through protecting its historic assets, its delicate cultural landscapes and its noble heritage... Al Ain's urban fabric, neighbourhood infrastructure and public gardens will support the emirate's Arabic values, social arrangements and culture."

The proposals for Al Ain are ambitious, in terms of their vision, and aim to see the city transition from an economy based on tourism, construction, real estate and civil service jobs to one that gives heightened focus on high-end manufacturing, light industry (including agribusiness) and health care.

**AVIATION & AEROSPACE:** One of the most ambitious projects is the government's plan to develop an aviation and aerospace park around the existing Al Ain International Airport, recently branded the Nibras Al Ain Aerospace Park (Nibras). Launched in 2009, Strata, a subsidiary of Mubadala, a strategic

**Al Ain hotel indicators, 2011**

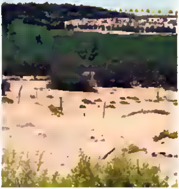
| | |
|---|---|
| No. of guests (000) | 13 |
| No. of guest nights (000) | 266 |
| No. of hotel rooms (000) | 542 |
| Avg. length of stay (days) | 2 |
| Annual occupancy rate (%) | 59.4 |
| Avg. room revenue (Dh) | 460 |
| RevPAR (Dh) | 273 |

SOURCE: Abu Dhabi Tourism & Culture Authority

investment arm of the Abu Dhabi government, has been manufacturing composite aerostructures for use in aircraft assembly in addition to its existing contract with Airbus, FACC, Alenia, and SABCA to supply aerostructures. In November 2011 Strata signed a 10-year contract with Boeing to supply the US-based manufacturer with the B777 empennage ribs and B787 vertical fin ribs. This deal should enable the company to move towards becoming a tier-one supplier to the aerospace industry. The Advanced Military Maintenance Overhaul and Repair Centre, a joint venture between Mubadala, Sikorsky Aircraft, a subsidiary of US-listed United Technologies Corporation and US defence group Lockheed Martin, is a UAE-based company that is responsible for the maintenance, repair and overhaul (MRO) operations of military aircraft. It is currently co-sited in Abu Dhabi City with Abu Dhabi Aircraft Technologies, another MRO firm, and is due to move to its new facilities in Al Ain by 2014. Currently operating in Al Ain are two institutions dedicated to fostering a local aerospace skills base – Horizon International Flight Academy (also part of Mubadala), which trains both military and civil pilots for helicopter and fixed wing vehicles, and the Al Ain International Aviation Academy, part of Abu Dhabi's Institute of Applied Technology, which trains staff in aircraft maintenance and air traffic control. Meanwhile, Nibras is expected to introduce a number of large-scale assembly and manufacturing facilities to Al Ain. The project will be developed over a 50-year period between 2010 and 2060, and will provide the space for ancillary industries and small and medium-sized enterprises (SMEs) to take advantage of the expected rapid growth in the city's aviation industry.

**AGRIBUSINESS:** Another promising area for industrial expansion is agribusiness. Al Ain's fertile land and relative proximity to major population centres in Abu Dhabi City, Dubai and Oman, as well as its numerous food processing factories, have provided the city with many advantages. Al Foah, a subsidiary of Abu Dhabi's General Holding Company, is one of the largest date processing factories in the UAE. Al Foah utilises almost the entirety of the emirate's crop, or some 90,000 tonnes per year. At present, Al Foah sells a variety of basic and premium brands. Moving forward, the firm hopes to increase its output of premium brands for greater added value.

Al Ain Dairy, one of the largest dairy farms in the Middle East, was founded in 1981 under the auspices of Sheikh Zayed. The dairy currently has three farms and in 2004, opened a production facility in Al Ain. As of 2009 Al Ain Dairy produced 210,000 litres of milk per day, provided some 56% of demand in the UAE and had a 38% market share. The dairy has also expanded its business to produce a variety of other products, including juices and camel milk, and in the coming years it plans further growth through the expansion of its farms and increasing its range of products. Exeed, a subsidiary of UAE-based National Holding, announced in June 2012 that it had signed a memorandum of understanding with Greece-based Vivartia, a food and beverage group, to set up a processing plant for juice, milk and tea in Al Ain. The company expects to produce 24m litres of juice and 60m litres of dairy products annually.

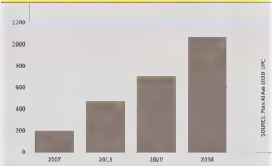


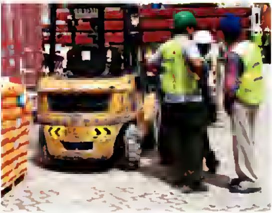
The city is a popular destination for a variety of outdoor activities

Diversification of the region's economy is key to government plans, with production of aerospace supplies, food processing and tourism all areas targeted for development

**TOURISM:** Al Ain continues to be an attractive destination for nationals looking for a cooler climate. As a desert city, Al Ain has lower humidity levels than many other cities on the coast, and is markedly cooler at night. It is also an alternative to the cities of Abu Dhabi and Dubai for international tourists. In addition to its environment and historic sites, Al Ain is also a good base for outdoor activities, such as climbing and "dune-bashing" – exploring the sand dunes in four-wheel-drive vehicles. Al Ain is also home to a number of parks, museums and festivals. Al Ain Wildlife Park and Resort (AAWPR), an extension of Al Ain Zoo, was set up in 2006. The expansion of the Al Ain Zoo, a development of 900 ha, is dedicated to education and conservation of desert species. The most significant segment of the project is the Sheikh Zayed Desert Learning Centre, which

Projected tourist numbers, 2007-30 (000 per year)





Newer building materials like concrete are being used, but adobe and traditional options remain as well

is designed to honour the legacy of Sheikh Zayed and his dedication to the environment, wildlife and conservation. The centre will offer exhibitions on the natural and cultural history of not only the Arabian deserts, but also deserts worldwide, blending a museum, a gallery and a science centre. It is the first government development to receive a five pearl rating from the Estidama Pearl Rating System.

"The primary objective of the AAWPR is the education and inspiration of young people and helping to establish a commitment to conservation and the environment," Ghanim Al Hajeri, director general of the AAWPR, told OBG. "This will nurture the next generation of scientists and environmentalists."

The Al Ain National Museum and Palace Museum detail the emirate's more recent history, while the Hili Archaeological Park is home to the largest collection of Bronze Age remains in the UAE, dating back to the third millennium BCE. The Al Ain Classics Festival has Western classical music concerts by famous performers and philharmonics in the Al Jahili Fort, one of Al Ain's best-known landmarks. Finally, Al Ain Sports and Cultural Club is one of the UAE's most popular football teams, and the only UAE side ever to have won the Asian Champions League title.

To accommodate increasing tourist numbers, hotel rooms are being added in the coming years. According to UPC projections, the total number of hotel rooms in Al Ain is set to rise from 796 in 2007 to 1800 in 2013, 2700 in 2020 and 4000 by 2030, with four- and five-star establishments expected to account for the bulk of the increase in capacity.

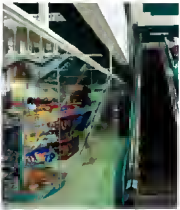
**HOUSE & HOME:** To house its expanding population, the number of housing units in Al Ain is projected to rise from 67,000 units in 2007 to 202,000 units by 2030, according to Plan Al Ain 2030. Of these, 41,400 units will be for Emiratis, many of them affordable housing developed by the government. One of the most interesting features of Plan Al Ain 2030 is that its aims to build new neighbourhoods for Emiratis according to the traditional *fareej* pattern. A fareej – meaning neighbourhood in the Emirati dialect of Arabic – is a traditional urban layout consisting of clusters of homes, often occupied by an extended family, based around a courtyard or other outdoor shared space. The fareej is suited to the climate, with low energy consumption and buildings made of materials like adobe, which absorb less heat than concrete. Additionally, rather than installing broad boulevards found in modern developments, the fareej will be linked by shaded walkways.

**UP TO CODE:** The emirate of Abu Dhabi adopted a new building code in 2010, which introduced a new framework for the design of both buildings and communities, known as the Estidama Pearl Rating System. This new code sets minimum requirements for building standards, such as water and energy consumption, before planning consent can be granted. Under new regulations from Estidama, the Abu Dhabi government's initiative to promote environmental sustainability locally, all new buildings in Abu Dhabi are expected to achieve a rating of at least one pearl out of a possible total of five.

Al Ain Wildlife Park & Resort and the Sheikh Zayed Desert Learning Centre earned Estidama-compliance in 2009 and 2008, respectively, as they were selected as Estidama pilot projects. The ultimate goal of Estidama is to preserve and enrich Abu Dhabi's physical and cultural identity, while improving the quality of life for residents. The government has also invested in *shaabiyas* – relatively small clusters of housing in rural areas where essential services can be provided to the local population. Although shaabiyas can be found across the emirate, Al Ain Municipality contains many of these communities.

To house lower-income expatriate workers, the UAE is working to construct dedicated housing complexes in a bid to improve living conditions. Aldar, one of the largest local real estate groups, opened one such complex, its seventh in the emirate, in April 2012, the Al Ain Operative Village, with space for 6000

The city had 756 hotel rooms in 2007, but this is set to rise to 1800 in 2013 and could reach 2700 by 2020, with many new four- and five-star facilities in the works.



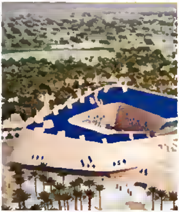
Urban retail spaces serve a growing commuter population

workers. The village features a number of amenities, including a health centre and pharmacy, as well as sports facilities. In addition, the complex can be upgraded in line with Al Ain's growth to ultimately house up to 20,000 workers.

**CATERING FOR GROWTH:** In anticipation of the expected growth in the coming years, Plan Al Ain 2030 envisions an expanded central business district. According to the plan, the available office space in the region is forecast to increase from 150,000 sq metres in 2007 to 250,000 sq metres in 2013, rising to 400,000 sq metres in 2020 and 600,000 sq metres in 2030. The bulk of the demand for office space is expected to come from the public sector and affiliated bodies, as well as from the development of the Nibras. Additionally the General Authority of Islamic Affairs and Endowments announced plans at the beginning of 2012 to develop two malls. The Asharj Mall will cover 12,220 sq metres over two floors, and feature a supermarket and 28 luxury apartments. Construction began in mid-2012 at a cost of Dh43m ($11.7m). Meanwhile, the downtown mall will have 7000 sq metres of retail space and 72 apartments, with construction taking place over a similar time frame to Asharj Mall, for Dh61m ($16.6m).

The Gateway Transit Corridor will link the new central business district with five other population centres by tram line. This will complement the existing bus network, run by the Abu Dhabi Department of Transport, which is also due to undergo expansion. In June the municipality completed a Dh1bn ($272m) upgrade to the main Al Ain-Dubai highway. Etihad Rail, the UAE's project to link all seven emirates and beyond by railway, features a spur from Abu Dhabi to Al Ain, where it crosses to Buraimi in Oman, and then to Muscat. Al Ain is equidistant from the ports of Sohar in Oman, Jebel Ali in Dubai and Abu Dhabi's new Khalifa Port each around one hour's drive away. There is significant commuter traffic from Al Ain to Abu Dhabi and Dubai, as many people have moved to Al Ain for its quieter pace of life and lower rents. Improved transport links are likely to enhance this trend. Al Ain International Airport has few connections, with only seven airlines serving it, and the Nibras means that the airport may continue to suffer from limited capacity. Over the long term, however Al Ain could become a regional logistics hub.

**HEALTH CARE AND EDUCATION:** Health care is also set for expansion to serve the growing local population. The existing nine hospitals in Al Ain (one military three public and five private) were joined in April 2012 by the Imperial College London Diabetes Centre, with Sheikh Tahnoon bin Mohammed Al Nahyan, the ruler's representative in the Eastern Region, performing the opening in June. High-sugar diets have seen Gulf states suffer some of the highest rates of diabetes in the world. In 2006 the US-based Johns Hopkins University began managing one Al Ain's biggest hospitals, Al Tawam Hospital. In 2010 the Tawam Molecular Imaging Centre, a partnership between Johns Hopkins Medicine and Mubadala



New education facilities have made Al Ain a destination for learning

Healthcare opened its doors. The centre has diagnostic imaging systems for detecting cancer, cardiovascular and neurological diseases. The city also has several schools, including UAE University – the federation's oldest – which opened in 1976 and has 12,000 students across nine faculties, as well as a number of private universities, including the Al Ain University of Science and Technology, which opened in 2005, and an Abu Dhabi University campus. The first public library in the city opened in May 2012.

**OUTLOOK:** Al Ain may be the second city of the emirate of Abu Dhabi, but plans are afoot to ensure it keeps pace with its regional neighbours. Sustained investment, particularly in energy, logistics, trade and aerospace, is slowly transforming the region into a major economic centre. In the shorter term, tourism is expected to remain one of the principal drivers of the economy, but this is due to be joined shortly by manufacturing, particularly within the aerospace industry. The Nibras is likely to benefit the region's SMEs and educational institutes, which can play a bigger role in the economy in the future.

Plan Al Ain forecast that there will be 250,000 sq metres of office space in the city in 2013, up from 150,000 sq metres in 2007. The total could reach 400,000 sq metres by 2020.

**Al Ain growth forecast, 2007-30**

| | 2007 | 2013 | 2020 | 2030 |
|---|---|---|---|---|
| Population | | | | |
| Total | 314,000 | 475,000 | 527,000 | 1,000,000 |
| Emirati | 122,000 | 141,000 | 167,000 | 290,000 |
| Expatriate | 252,000 | 335,000 | 460,000 | 710,000 |
| Residential units | | | | |
| Total | 61,000 | 86,800 | 124,300 | 202,000 |
| Emirati | 13,200 | 15,100 | 22,600 | 41,400 |
| Expatriate | 53,800 | 71,600 | 101,700 | 160,600 |
| Business space (sq metres) | | | | |
| Office | 150,000 | 250,000 | 400,000 | 600,000 |
| Retail | 460,000 | 600,000 | 800,000 | 1,100,000 |
| Industrial | 800,000 | 1,000,000 | 1,450,000 | 1,975,000 |
| Hotel rooms | 795 | 1500 | 2700 | 4000 |

SOURCE: Plan Al Ain 2030, UPC

Officials are working to maintain the beauty and culture of the oasis

# A measured approach

## Developments will help the city preserve its environment and traditions

With a population of 389,400 as of mid-2011 – some 103,800 of whom are Emirati nationals – Al Ain is the second-largest city in the emirate of Abu Dhabi and the fourth largest in the UAE. It has grown without losing its character or damaging the oasis that has sustained it for more than 4000 years. However, the population of the UAE has been soaring in recent years, driven by high birth rates among nationals and strong inward migration, and Al Ain is no exception to this trend.

At the same time, the authorities are keen to use part of the emirate's oil wealth to diversify the economy. Their efforts culminated in a document published in 2009 known as the Abu Dhabi Economic Vision 2030, which lays out a road map for diversification in the emirate. In addition to this, the emirate's Urban Planning Council (UPC) issued a set of framework plans to inform urban development as cities are renovated over the next 20 years. Al Ain also has its own document, Plan Al Ain 2030, which consists of an economic vision, urban structure plan for the city of Al Ain itself and a regional planning framework for the entire municipality, subdivided into a further four plans dealing with semi-rural sub-districts outside Al Ain City.

**PRESERVATION:** The plan is predicated on preserving the environment and Arab character of the city. Al Ain was the birthplace of the late Sheikh Zayed bin Sultan Al Nahyan, founder of the UAE, who was keen that the city not lose its unique traits. To this day, it remains a low-rise, traditional city, and the proportion of Emiratis – around one-third – is high compared to the national average of around one-eighth. Indeed, part of the plan involves measures to stem the outflow of nationals and maintain the Emirati population at current proportions. Chiefly, this involves developing the city's economy from one centred on tourism, agriculture and services to one with a greater industrial base, particularly aerospace, with a dedicated aerospace park, branded as Nibras Al Ain Aerospace Park (Nibras), scheduled for development at the current Al Ain International Airport. At the same time, growth must be sustainable and not come at the expense of the environment, in order to retain Al Ain's high quality of life.

Retail space is expected to rise in conjunction with population growth, from 800,000 sq metres in 2009 to an estimated 1.45m sq metres by 2020.

**GROWTH BY NUMBERS:** According to projections from the UPC, the population of Al Ain Municipality is expected to grow to 627,000 by 2020 and 1m by 2030. In order to accommodate these increases, new housing developments will be required. The total number of housing units is set to rise from 67,000 in 2009 to 124,000 in 2020 and 202,000 in 2030, with 41,000 of these units set aside for nationals. Office space is also set to rise from 150,000 sq metres in 2009 to 400,000 sq metres in 2020 and 600,000 sq metres in 2030. Meanwhile, retail space is set to expand from 460,000 sq metres in 2009 to 800,000 sq metres in 2020 and 1.1m sq metres in 2030. Finally, the area allocated for industrial parks and developments will rise from 800,000 sq metres in 2009 to 1.45m sq metres in 2020 and 1.98m sq metres in 2030. This figure, however, does not include Nibras, which is set to cover 25 sq km in total.

Under the terms of the Urban Framework Plan, both the grid system and the present height limit for buildings, which is set to a maximum of five floors, will remain the same. However, to cope with the rise in population, Al Ain will necessarily have to undergo extensive remodelling. As such, the plan envisages residential precincts that will be linked by thoroughfares. Within these precincts, the overall design will draw upon traditional modes of urban development to minimise exposure to sun. In particular, neighbourhoods for Emiratis will be built around the fareej system, the traditional urban layout in the country, which allows for extended families to live in proximity to one another.

The idea is to move from an urban system based around the car to one based on walking and public transport, with shaded walkways offering a public space. The city centre is to be revitalised with a central business district, which will extend to outer districts through a network of trams and buses. Additionally, a new high-speed rail link, a portion of the Etihad Railway project, will connect Al Ain with Abu Dhabi and Oman by 2017.

# Education

Regulating the market to ensure improved standards
Strengthening domestic and international collaboration
Promoting cooperation between education and industry
Attracting English-speaking educators to boost training

Expanding the education sector is key to boosting economic growth

# Meeting diverse challenges

## A rapidly growing sector paves the way for learning at all levels

The role of education is pivotal to Abu Dhabi's economic development plan, known as Economic Vision 2030. Whilst the emirate currently maintains one of the more respected educational systems in the region, the sector continues to develop and possesses tremendous potential for sustainable and long-term growth. Recent collaborative efforts have focused on upgrading the present academic system by reducing gaps between vocational education and industry and between secondary and tertiary education.

**ORGANISATIONS INVOLVED:** Various federal and local government agencies are involved in the development of the sector, including the Ministry of Education (MoE), a federal body responsible for schooling through the secondary level. While the MoE maintains the regulatory authority and oversight over national preschool-12th grade (P-12) education, the Abu Dhabi Education Council (ADEC) has direct control over the operational details pertaining to the emirate. This includes physical infrastructure, development of curricula and cooperation with the private sector. Established in 2005, ADEC's mandate covers both public and private P-12 education, as well as higher education.

The National Qualifications Authority (NQA), a federal body set up in late 2010, is responsible for setting national academic standards across all levels of education in the UAE. Three government bodies are in charge of implementing these standards. The Commission for Academic Accreditation (CAA) was established in 2000 and accredits all post-secondary education programmes that are offered by institutions licensed by the Ministry of Higher Education and Scientific Research (MOHESR). The CAA is currently the only body in the UAE responsible for the accreditation of vocational training institutions offering programmes of one academic year or longer. It is a separate entity within MOHESR and operates with relative independence.

The MoE supervises the compulsory grade 12 secondary school certificate. The Vocational Education and Training Awards Commission (VETAC) operates under the authority of the NQA and is currently developing a National Licensure System of Accreditation, which VETAC will use to both license training providers as well as accredit relevant courses and programmes.

**STRUCTURE:** The P-12 school system is divided into four tiers, with education typically beginning at age four. The first tier, known as kindergarten, lasts two years, though only the second year is mandatory. Kindergarten is followed by primary school or Cycle 1 (grades 1-5), preparatory school or Cycle 2 (grades 6-9) and secondary school or Cycle 3 (grades 10-12). A number of options for post-secondary education are offered in the emirate, including vocational training and university degrees.

As per recent figures published by the Statistics Centre – Abu Dhabi (SCAD), there were 480 schools in the emirate during the 2010/11 school year. Of these, 53 were kindergartens, 90 were primary schools, 54 were preparatory schools, 46 were secondary schools and 237 were multi-stage schools. Approximately half of these schools were located in the Abu Dhabi region, with the rest in Al Ain and Al Gharbia.

Recent figures from SCAD report a total of nearly 300 government schools in the 2010/11 academic year, while the remaining 181 schools were privately operated. The largest percentage of these private schools used curricula established by the MoE, while American, British and Indian curricula were also commonly used.

**FACTS & FIGURES:** Student enrolment in the emirate has risen sharply in recent years. There were 306,000 total students in the 2010/11 school year, a 23% on 2005/06, which had about 250,000 students total. Of the 2010/11 total, over 60% were enrolled in schools in the Abu Dhabi region and overall almost 60% studied at private institutions, according to SCAD figures.

There was an average of 22.5 pupils per classroom in 2010/11. Pupils per teacher in the same period averaged 11.0, showing an improvement on 14.2 pupils per teacher in 2000/01. Pupil per classroom and pupil per teacher averages, at 18.2 and 10.1 respectively, were lower in the sparsely populated region of Al Gharbia.

Abu Dhabi has seen a significant increase in student enrolment numbers in recent years. The figure rose by 22% from the period 2005/06 to 2010/11

Industry is taking a leading position in partnering with education institutions across Abu Dhabi

Important strides are being achieved in combating illiteracy. Among people aged 10-plus, the figure fell from 12.6% in 2005 to 7.5% in 2010. Greater effort is being aimed at further reducing this figure

Figures published by SCAD in late 2012 indicate that less than half of those 306,000 students attending schools in Abu Dhabi in 2010/11 were UAE nationals. Totalling around 135,000 students, this represented an increase of about 16% from the 2005/06 academic year when UAE students numbered roughly 115,000. Almost 70% of UAE nationals enrolled during 2010/11 attended government schools.

The number of teachers at public schools has jumped by almost 9% over the past 10 years. With around 10,500 teachers in 2000/01, government schools employed a workforce of almost 11,500 teachers in 2010/11, according to SCAD. Totalling just under 8000 the majority of teachers during this period were expatriates, with male teachers making up slightly more than 50% of this figure. At almost 90%, the vast majority of teachers with UAE citizenship were female.

The increase of teachers at private schools over the past decade has been significant. While private schools employed around 5000 teachers in 2000/01, this figure has more than doubled, with approximately 11,000 teachers on private school payrolls during the 2010/11 academic year, according to SCAD figures.

A falling illiteracy rate in Abu Dhabi is one positive indicator for the emirate's developing P-12 sector. Recent SCAD data showed that the estimated illiteracy rate among those aged 10 years and older has dropped from 12.6% in 2005 to 7.5% in 2011. This is a fall of around 40% and covers both males and females and among UAE nationals and expatriates alike. However, illiteracy among the youth population – those aged 15-24 years – has increased from 5.8% in 2005 to 6.4% in 2011, largely due to higher illiteracy rates among recently arrived non-Emirati citizens.

Abu Dhabi was home to 31 different universities, colleges and institutes in 2010/11, three of which were government owned, according to recent data published by SCAD. As many as 40,000 students were enrolled in different forms of higher education during 2009/10, around 60% of whom attended government institutions. Female students represented 58% of the overall total tertiary education enrolment figures for 2009/10.

**UPGRADES:** While Abu Dhabi's education sector continues to expand and improve, several government agencies have recognised areas for further development and are taking important steps to ensure that upgrades are implemented effectively in the immediate future. For example, in early 2012 the NQA released a handbook outlining the policies and standards for a qualifications framework to be applied in the UAE, known as QFEmirates. The handbook lays out a consistent method for the design of qualifications for all levels of education in the country.

Among other results, QFEmirates will raise the profile and quality of vocational training and make sure that vocational education standards are met. In addition, the handbook is meant to ensure that international standards and qualifications are recognised in the UAE. The NQA is currently in the process of simplifying and improving QFEmirates, and full implementation of the framework is expected to take place in 2013.

Further work is under way at the NQA to balance the importance of previous work experience with the significance of academic achievement. "Knowledge and experience are under-appreciated by employers in the UAE," said Thani Al Mehairi, the NQA's director-general. "Employers need to take prior work experience into greater consideration and not only be focused on diplomas or other certifications when hiring. The NQA is in the process of developing the Recognition of Prior Learning policy that will ultimately help learners move up in their career paths and give them an opportunity to have their experience recognised," he told OBG.

Further steps include closing the gap between secondary and tertiary education in the emirate, as many secondary school graduates require bridge programmes to reach the required standards to enter university courses, according to ADEC. "It is necessary to close the gap between high school graduates and the requirements for university students," said Ismail Tag, the acting president and provost of the Petroleum Institute.

Government schools employed about 11,500 teachers in 2010/11

an engineering school funded by the Abu Dhabi National Oil Company (ADNOC). "The aim is to reduce the need for a foundation year, which will help save time for graduates and resources for the local universities."

**HOLISTIC REFORM:** ADEC is taking an active role in making the transition to secondary education smoother. In June 2009 the organisation formally released a 10-year strategic plan for upgrading P-12 education, taking a holistic approach to the reform process.

Based on a collaborative effort between local and international experts, ADEC's new plan includes both short- and long-term strategies. The authority will aim to fulfil four key objectives: raise the quality of Abu Dhabi schools to the international standards; provide all children with access to high-quality schooling; create affordable and high-quality private education options; and upgrade the academic system without compromising either local culture or national identity.

One of the most important components of ADEC's plan is the introduction of the New School Model (NSM). Two core beliefs lie at the heart of this new teaching and learning method. First, the NSM places the student at the centre of education, rather than the teacher. This represents a significant change from methods in much of the MENA region. Second, the NSM introduces more instructor accountability by shifting the responsibility of learning from the student to the teacher.

The implications of the NSM are far reaching, and maintaining a high-quality teaching staff is paramount to achieving ADEC's plan. ADEC is bringing in 2000 licensed teachers from abroad and has hired around 16,000 teachers from 2010-12, according to figures provided by the authority. It is also providing classes for instructors to ensure that teachers at Abu Dhabi schools are not only experts in content, but also adept at using successful teaching techniques.

Naturally, building a high-quality education system is a gradual process, and for that reason ADEC's new strategic plan is being implemented in a number of stages. Having begun with the 2010/11 school year, ADEC put the plan into effect for all students in kindergarten and grades 1, 2 and 3. Implementation for grade 4 took place in 2011/12, and that for grade 5 will begin during the 2012/13 academic year. Implementation of the new plan for preparatory and secondary schools is currently in the planning stages.

**ASSESSMENTS:** ADEC was also recently involved in an initiative to rate school performance in the emirate. In early 2012 the international inspections organisation, Tribal, teamed up with ADEC to inspect 12 government

### Higher education graduates, 2010/11

| Citizenship & sector | Male (%) | Female (%) | Total (%) |
|---|---|---|---|
| Citizen | 68.0 | 63.0 | 64.7 |
| Government | 87.5 | 87.9 | 95.7 |
| Private | 39.1 | 52.6 | 29.8 |
| Non citizen | 32.0 | 37.0 | 35.3 |
| Government | 12.5 | 12.1 | 13.3 |
| Private | 60.9 | 47.4 | 70.2 |

SOURCE: SCAD


Local education bodies are seeking to raise quality and standards among education providers

schools in Abu Dhabi. The inspections team visited each school for a week during March and April. Schools were assessed on progress and personal development, student achievement, quality of teaching, safety, management competency, and school facilities and resources. A self-assessment was also required of each school.

Organisers of the initiative hope that school inspections will raise the accountability of educators in Abu Dhabi. While ADEC will not publish individual grades of each school until inspections of all public schools are completed in 2013, the authority has provided information regarding general performance. None of the 12 schools inspected received a top score; however, several schools showed signs of improvement.

Several schools scored strongly on teaching practice and leadership. Inspectors also found that several principals maintained a clear vision and employed established methods of helping students enjoy learning. Some schools received lower scores for management, and inspectors noted that better methods were needed to measure student development. Further, progress needs to be made by establishing partnerships between schools and sharing best practices.

ADEC intends to continue to adjust and fine tune its evaluation system until 2017, with plans to emphasise a particular theme, such as environmental programmes or health and safety, each year in its annual inspections. Private schools will also be evaluated, with results made public at the end of the 2012/13 school year.

**TECH SAVVY:** IT is one area many educators are striving to implement and improve. ADEC, for example, is working to wirelessly connect all schools in Abu Dhabi and announced plans in October 2011 to implement a new learning tool known as iClass. Initially introduced as a one-year pilot initiative in grades 3 and 4 in six government schools during the 2011/12 academic year, ADEC aims to eventually implement the iClass scheme in all ADEC-managed government schools.

In addition, ADEC organised the Transforming Education Summit in 2012, which covered in part how to

A dual emphasis on student-centred education and improved technology in the classroom has created a framework for lifting education standards.

improve IT integration in schools. The list of delegates attending the conference included academics, as well as government and business leaders, and organisers expected more than 150 international delegates. The biennial event took place in Abu Dhabi in May 2012.

ADEC introduced an online scholarship application system a month later in June. The new system allows public school students in Abu Dhabi to submit required scholarship application documents and communicate with ADEC through a new web portal. Not only will the system make it possible for pupils to correspond with ADEC from around the world, the council will be able to support a government push to increase green office practices by digitising 90% of relevant paperwork.

The NQA has also recognised the importance of IT education, and sets policies regarding the usage of such technology for academic purposes. "We would like to focus on the development of e-learning as this will help complement traditional learning sources and enable greater educational inclusiveness within the country," said Al Mehairi.

**HIGHER EDUCATION:** Secondary school graduates have a number of options when applying for post-secondary education in Abu Dhabi. According to recent statistics published by SCAD, a total of nine universities and 13 colleges as well as several vocational institutes were operating in the emirate during the 2009/10 school year. Of the 40,000 students enrolled in some form of higher education during the same period, 75% (or roughly 30,000 students) were UAE nationals.

Established in 1976, UAE University (UAEU) is a leading national university based in Abu Dhabi. According to UAEU figures, more than 12,000 students were enrolled at the institution during the 2010/11 school year, and female students outnumbered male students by around three to one. The university employed more than 650 faculty members, in addition to a number of visiting professors, during the same period.

While the vast majority of UAEU's students were registered for undergraduate programmes during 2010/11, the university offers a number of graduate degrees and some 450 students – not including the roughly 100 doctoral students – were enrolled in graduate studies programmes during the same period. Degrees offered in the College of Humanities and Social Science as well as the College of Business and Economics were the most popular in 2010/11, with more than 2800 students enrolled in each. Degrees on offer by the College of Engineering and the College of Science were the third and fourth most popular programmes, with approximately 1800 and 1000 enrolled students, respectively.

P-12 enrolment in Abu Dhabi

| | 2000/01 | 2005/06 | 2010/11 |
|---|---|---|---|
| Public | 142,022 | 127,211 | 125,970 |
| Private | 51,555 | 123,655 | 180,527 |
| Citizen | 58,861 | 115,888 | 135,685 |
| Non citizen | 125,149 | 134,021 | 170,806 |
| Total | 224,010 | 250,505 | 306,451 |

SOURCE: SCAD


Both secondary and tertiary education is being targeted through improved facilities and new concepts

The Higher Colleges of Technology (HCT) are also well-represented in Abu Dhabi. With campuses across the UAE, there are four HCT colleges in Abu Dhabi, each with a separate campus for men and women. Total enrolment during the 2010/11 academic year surpassed 8000, according to the most recent HCT figures.

Zayed University (ZU) was founded in 1998 to serve Emirati women but the institution now also admits men. The university enrolled 4500 students in its Abu Dhabi campus, and a similar number in Dubai, for the 2011/12 academic year. This is an increase of nearly 20% from the previous year. ZU offers bachelor degrees in arts and sciences, business, education, IT and media.

Another large number of students study at Abu Dhabi University (ADU). According to ADU data, around 4300 students representing more than 55 nationalities currently attend the institution. Established in 2003 with campuses in both Abu Dhabi and Al Ain, ADU expects to eventually increase enrolment to 10,000 students.

The university has over 140 faculty members, with the largest number of staff teaching in the College of Engineering and Computer Science and the College of Business Administration. Alongside its wide range of undergraduate degrees, ADU offers several postgraduate degrees, including a master's in engineering management and a master's in special education.

Established almost two decades ago, the Emirates College of Technology (ECT) provides students with two-year diploma programmes in subjects such as accounting, computer design and animation, human resource management, and a double major diploma in business administration and computer information systems. ECT also offers students a bachelor's degree course in business administration.

Other higher education institutions operating in Abu Dhabi include Alhosn University and Al Ain University of Science and Technology. Both are private universities that were founded in 2005.

**FROM ABROAD:** A relative newcomer, France's Sorbonne established a branch campus, Paris-Sorbonne

According to statistics from SCAD, nine universities, 13 colleges and several vocational institutes were operating in the emirate during the 2009/10 school year. Of the 40,000 students enrolled in that year, 75% were Emirati.

The diverse range of options for post graduate studies outside of university education is building closer links between academic and corporate partners.

University Abu Dhabi (PSUAD), in February 2006. Originally offering degrees in the humanities and social sciences, PSUAD has since expanded this through a joint effort with Université Paris-Descartes to include programmes in law, political science and economics. There is potential to increase this list in the future.

A total of 650 students were enrolled at the university during the past academic year, according to recent PSUAD figures. Emiratis made up slightly more than 30% of the student body, and roughly one-third were registered in one of the university's 10 master's programmes. As the language of instruction at PSUAD is French, all incoming students are required to be proficient in the language. Those with insufficient language ability can choose to enrol in an intensive, year-long French course prior to registering as a student at PSUAD.

IT education is an integral part of learning at PSUAD. Professors often teach at both PSUAD and Paris-Sorbonne and Paris-Descartes, and many travel back and forth between the UAE and France. As a result, communication between professors and students often takes place electronically. To increase connectivity, PSUAD recently finished developing a digitised method for marking exams, and the university plans to develop teleconference technology for lectures.

Additionally, New York University (NYU) Abu Dhabi enrolled its first class in the autumn of 2010. Currently located in the city centre with plans to move to a new campus on Saadiyat Island in 2014, NYU Abu Dhabi is a full branch of NYU New York and offers undergraduate degrees, with plans to expand into graduate studies in the future. Lastly, the French business school INSEAD offers an executive master of business administration programme from its campus in Abu Dhabi City.

**NON-TRADITIONAL SCHOOLING:** Among the non-traditional centres offering continuing education is the Emirates Centre for Strategic Studies and Research (ECSSR). ECSSR is an independent institution aimed at facilitating research on issues of socio-economic and political importance, and offers UAE nationals two full-time academic programmes. The post-graduate diploma in scientific research methodology is an 11-month programme with an average annual intake of 9-15 students. The programme trains students to carry out quantitative and qualitative research in economic, political and military fields. A six-month programme, the post-graduate diploma in diplomatic studies prepares Emirati university graduates for a career in diplomacy.

In addition to its academic programmes, ECSSR also organises conferences, workshops, lectures and symposia, contributes funding for research grants and fellowships; and provides its staff with in-house training. At ECSSR's second annual education conference in October 2011, discussion focused on the roles of society and the state in establishing successful education systems in the UAE. The institute's third education conference took place in Abu Dhabi in October 2012, with guests in attendance arriving from across the region.

**ACADEMIC-CORPORATE PARTNERSHIPS:** One of the most important current trends in tertiary education is collaboration between academics and industry. "The entire country is moving at a fast pace economically. As a result, it is imperative to produce graduates that meet the needs of the present and future job market," Abdullah Saad Al Khanbashi, the former vice-chancellor of UAEU, told OBG. "This can only be achieved if universities work in close collaboration with the public and private sector to understand the job marketplace."

One such initiative, the Tawazun Work-Study Programme (TWSP), was established by UAEU and Tawazun, a fully owned subsidiary of the Offset Programme Bureau. The programme focuses on defence and specialised manufacturing. Opened in 2008, the TWSP is designed to train national engineers to serve the needs of emerging industries in the UAE. After one year of German studies to acquire necessary machinist's skills and undergoing pre-university academic preparation, students enrol in UAEU's mechanical engineering programme. The next four years comprise of on-the-job training for two days a week with academic study on the other days, coupled with summer work projects.

A collaborative agreement between the Massachusetts Institute of Technology (MIT) and Masdar has led to the Masdar Institute of Science and Technology. Located in Masdar City, the institute currently has seven two-year master's programmes, and admitted its first intake of 88 students in 2009. Enrolment has grown to 170 students, of whom 43% are Emirati according to recent Masdar Institute data. Other joint efforts between academe and industry have brought about the Petroleum Institute, a degree-granting university focused on applied science and engineering with all programmes accredited by the Accreditation Board for Engineering and Technology. Established in 2000 as a collaboration between ADNOC and the US-based Colorado School of Mines, the institution is funded by ADNOC, in addition to a number of international partners such as Shell, British Petroleum, Total and Japan Oil Company.

Notably, educators at the Petroleum Institute rely on ADNOC and similar firms for more than university funding. "Feedback from local energy industry operators and ADNOC is very important when developing our curriculum," said Tag. "This ensures that our teaching remains topical and up-to-date with industry needs." The institute's first set of graduates finished in 2006.

The success and continuing growth of science-focused institutions is a positive indicator for Abu Dhabi's economy in the medium to long term. Transitioning to a knowledge-based economy will require more engineers and graduates in applied science. "There needs to be a shift away from both the system and the students' tendency to focus on business management degrees and look towards technical sciences," said Wael Ibrahim Al Anqar, the chairman of the Emirates College of Technology. "We need to make engineering and similar degrees more attractive to students," he told OBG.

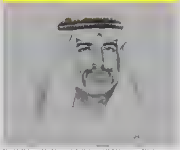
This tendency towards non-science disciplines is also found among secondary students. The MoE and ADEC have recently attempted to transform this trend by requiring all students to study the sciences through grade 11. Secondary students who had decided to focus their studies on a discipline other than science had previously been required to study the sciences through grade 10. It is hoped that by enrolling in more science classes, students will take a greater interest in studying engineering and science programmes at the post-secondary level.

Technical degree programmes are being encouraged to build the skills base needed for diversification

There is a growing focus on boosting reading rates among the younger population. The emirate is seeking to balance this with technology by, among other things, promoting the expansion of online Arabic content

**LITERACY:** Current literacy rates can be partly attributed to a general lack of interest in reading among Emiratis, a challenge the UAE shares with many Arabic-speaking countries. "Less than 2% of the population in the Arabic-speaking world reads one book a year, according to the UN," explained Jamal Sanad Al Suwaidi, director-general of the Emirates Centre for Strategic Studies and Research. "It is important to raise awareness of research and reading to create a knowledge-based society." One method of increasing the population's interest in reading is to expand the amount of Arabic content online. There are already positive indications that the trend towards more digital content in Arabic is picking up speed. According to News Group International, a news management firm based in Dubai, Arabic content online has grown from an estimated 0.2% of online content in 2008 to around 2% currently.

**OUTLOOK:** The government has recognised the importance of developing a strong education system and is actively seeking to continue recent progress. For example, most young Emirati men and women understand the importance of academia and want to finish their education, according to ECSSR. A significant rise in the number of private universities offering higher degrees is an encouraging sign as well. There are also many scholarships available for Emiratis students interested in studying abroad. At the P-12 level, ADEC is also taking steps to improve English language skills by employing native English teachers to better prepare students for post-secondary education. This bodes well for the emirate given the growth of its youth population and the rapid change and expansion of its economy.



Sheikh Nahyan bin Mubarak Al Nahyan, UAE Minister of Higher Education and Scientific Research

# The leap forward

## OBG talks to Sheikh Nahyan bin Mubarak Al Nahyan, UAE Minister of Higher Education and Scientific Research

**Given the young demographics of the UAE, what are the government's higher education priorities?**

**SHEIKH NAHYAN:** The government is committed to providing education and equal opportunities for all students, both male and female. In order to ensure sufficient capacity, the ministry carries out an annual study to monitor how many students plan to enter higher education institutions. We have reached an understanding in government that all students should be able to enter higher education according to their abilities. Each institution has its own criteria for admission, but every student will be entitled to a place in higher education. We believe the future of this country – the ability to sustain its development as well as maintain its security and standard of living – will depend on the quality of education we give our young people.

**What measures are being taken to support scientific research capacity at universities?**

**SHEIKH NAHYAN:** This is a key component to improving our universities. Continued economic development can be achieved only by enhancing and embarking on meaningful scientific research, especially in areas relevant to the local economy. As such, the ministry has established the National Research Foundation to support scientific research. Research in areas such as health, renewable energy, desalination and other industries complement the local economy. Additionally, we have encouraged the expansion of post-graduate studies, since research initiatives and post-graduate education must be closely aligned.

**How is strategy being developed in terms of quality assurance within the higher education sector?**

**SHEIKH NAHYAN:** This is a major priority. One of the initial objectives after the establishment of the Ministry of Higher Education was to establish the Commission for Academic Accreditation (CAA). The CAA has now established itself as one of the strongest accreditation bodies in the region. A very rigid standard is applied to all institutions that seek accreditation and licensing by the ministry. This process includes evaluating the curriculum, academic plans, examination process, quality of professors, size of the class and other metrics. Each university programme is only accredited after the first batch of students graduate from it. This enables us to review the students and ensure that they have command of the subject they have studied. Additionally, authorities in Abu Dhabi and Dubai have their own processes of accreditation. This is an additional layer of evaluation that benefits all parties.

**In what ways do local universities work with the private sector to ensure graduates are leaving with the most appropriate skills for available jobs?**

**SHEIKH NAHYAN:** It is our responsibility in both public and private education to equip graduates with the tools and work attitude enabling them to be productive in their field. If we are successful, they will not have a problem working for the public or private sector. We are very pleased with the private sector's eagerness to employ our graduates and invest in continued training.

**What is the future importance of electronic and distance learning in local university curricula?**

**SHEIKH NAHYAN:** The Commission for Academic Accreditation has developed a regulation to accredit electronic and distance learning. We believe this method of instruction will play a significant role in the future. It will allow prospective students in more remote areas to have increased access to education. It is also important to encourage life-long learning.

We have also embarked on a major project called iPads in Education, which will introduce iPads in the foundation programmes of the three federal universities. There are many advantages to this initiative. It will create a new way of teaching and allow students to keep up with any new development in their field of study. It represents a huge leap from previous methods of teaching towards a new way for students to acquire knowledge.

The expansion of research capacity ties into state economic plans

# Thinking outside the box

## There is an increased emphasis on developing new ideas to spur the sector and economy forward

Partnerships aimed at strengthening research and development are being forged across and beyond the sector. These include links between education and industry

The focus on research and development (R&D) at universities and higher education institutions bodes well for Abu Dhabi's education system and economy. Educators and public officials recognise the importance of investing in R&D projects. "A major component to economic development is building research capabilities," said Wael Ibrahim Al Anqar, the chairman of Emirates College of Technology (ECT), an Abu Dhabi-based institution. "More local universities are making this a priority when approaching the government for funding."

**IN PRACTICE:** A collaboration between Abu Dhabi University (ADU) and AccuVis Bio, a medical research and product development firm sponsored by the Khalifa Fund for Enterprise Development, led ADU and AccuVis Bio to set up a biotechnology incubator in 2012 to encourage research among Arab innovators. The incubator is located on ADU's campus at the university's Innovation and Entrepreneurship Centre and receives funding from the Khalifa Fund, as well as from the Sharjah-based Arab Science and Technology Foundation (ASTF).

Based on a two-year contract, R&D efforts at the incubator will support work in engineering, public health, biomedical and veterinary medicine. In addition to cooperative research and providing student training, the incubator will help researchers create prototypes that can be commercialised into marketable products.

ASTF also plans to recruit new researchers through marketing efforts at centres across the region. Prospective researchers will be required to demonstrate that they will create a biotechnology-related invention capable of attracting funding. A committee connected to the incubator will make acceptance decisions.

**ENTREPRENEURSHIP:** In an effort to help innovators and entrepreneurs transform ideas into marketable products, ADU partnered with the Khalifa Fund and the Abu Dhabi Chamber of Commerce and Industry to create the ADU Enterprise in late 2010. The initiative has so far held several entrepreneur training courses, and hopes to facilitate further innovation through the creation of small and medium-sized enterprises (SMEs).

ADU Enterprise and the new biotechnology incubator at ADU signify an attempt to link academia and industry. "Incubation initiatives and support for SMEs should be a major focus for all tertiary education facilities," said Nabil Ibrahim, chancellor of ADU. "Transforming local patents into marketable products is becoming more prevalent."

Khalifa University of Science, Technology and Research (KU) is working to strengthen its R&D capabilities and establish specialised research centres for information and communications technology, energy, health sciences, nanotechnology and aerospace. "We would like to see even more emphasis on scientific research," Tod Laursen, president of KU, told OBG. "R&D is critical to economic advancement, and local universities have a large role to play in this." KU offers several PhD specialisations in engineering, including mechanical, aerospace, nuclear, biomedical, robotics, communication, computer and electronic engineering. These are the first PhD of their kind offered in the UAE, and reflect human capital requirements outlined in Economic Vision 2030.

**ANKABUT:** A network linking over 25 higher education institutions in the UAE, Ankabut ("spider", in Arabic), was set up in 2006 with KU as one of its first members. Also a member, ADU hosted a conference in Abu Dhabi in June 2012 aimed at facilitating further collaboration on scientific research among UAE-based researchers. The event included the presentation of 56 recent research findings by over 120 students and faculty. Research covered several disciplines, including urban development, biochemistry, IT, linguistics, engineering management, and environmental health and safety.

Conference organisers' expectations rested in that the event would enable students to share their research and knowledge with others, as well as to connect with influential industry leaders. This second objective is significant due to the business opportunities that can be created. "Research in the UAE is moving towards innovation and is promoting entrepreneurship," said Ibrahim. "This is crucial to the future economy," he also added.

A skilled workforce is gaining strength through vocational training

# Practice makes perfect

## Vocational training institutions highlight the potential in students

The success of Abu Dhabi's education sector depends in part on the development of vocational training. Abu Dhabi Economic Vision 2030, the emirate's long term plan for economic development and diversification, underlines the importance of vocational education by indicating that greater technical training will improve local workforce skills in both the short and medium terms. Labour productivity and growth will rise as a result.

The different types of vocational education and training can be divided into several different categories. Some students seek vocational training through short course programmes or through apprenticeships, cadetships, internships and on-the-job training. Alternatively, vocational education can also be obtained through more formal methods referred to as institutional learning. This includes educational programmes lasting a minimum of one academic year for students who have completed at least grade 12.

**ORGANISATIONS:** Formal vocational programmes are provided by institutions accredited by the Commission for Academic Accreditation (CAA). Set up in 2000, the CAA operates under the authority of the Ministry of Higher Education and Scientific Research (MOHESR) and is currently the only authority in the country responsible for the accreditation of vocational training institutions offering programmes of one year or longer.

A number of other government agencies are also involved in Abu Dhabi's vocational training sector. The National Qualifications Authority (NQA), a federal body established in 2010, is in charge of setting national academic standards across all levels of education in the UAE. To this end, the NQA issued a handbook in 2012, the first of its kind, which specifies the standards and policies for a qualifications framework to be used in the UAE, known as QFEmirates. The handbook outlines how qualifications for all levels of education, including vocational training, will be designed in the UAE. Notably, the new qualifications framework will increase awareness and raise the quality of vocational education, and sets out to address potential emerging skills shortages.

Operating under the direction of the NQA, the Vocational Education and Training Awards Commission (VETAC) has the responsibility of interpreting QFEmirates. The agency is currently developing a National Licensure System of Accreditation. Upon completion of the development process, VETAC will use this system to accredit vocational programmes and courses, among others, as well as to license training providers.

Established in 2010 by the Abu Dhabi Executive Council, the Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET) monitors and regulates vocational education at the local level. The authority sets standards and policies with the objective of building a larger workforce of skilled Emiratis. ACTVET oversees two operating arms, the Abu Dhabi Vocational Education and Training Institute and the Institute of Applied Technology (IAT) that offer vocational and technical programs at secondary and post-secondary level in the seven emirates. "Part of Abu Dhabi's diversification strategy requires technologists and technically skilled Emiratis in various fields," Hussain Al Hammadi, director-general of ACTVET, told OBG. "This will enable development in new industrial sectors as per Economic Vision 2030, and even support existing industries such as oil and gas that still have a high demand for this skill set." ACTVET also licenses and trains vocational instructors.

**TRAINING PROVIDERS:** One vocational training provider in the emirate is the Abu Dhabi Vocational Education and Training Institute (ADVETI). Established by a decree from Sheikh Khalifa bin Zayed Al Nahyan in 2007, ADVETI has seven entities and, at the moment, focuses on education groups including business, IT, travel and tourism, design, environment studies, industrial technology, and logistics and engineering.

ADVETI has obtained a licence from the MOHESR and is building all of its programmes to meet the qualifications as outlined by the NQA. Just as importantly, however, the agency has designed its coursework with the assistance of local industry leaders to align training

Several organisations are working together to identify skills shortages and create vocational training programmes to strengthen these areas

There is a need to balance competitive admissions criteria and increased educational options for students

Additional further education and training options are being made available, with vocational training becoming more widespread

with the needs of job providers. In addition to its vocational diploma programmes, ADVETI has also developed a foundation programme for students whose English language abilities are not yet sufficient.

**BRIDGING THE GAP:** The NQA is taking further steps to bridge the current divide between skills and need. The government authority is presently collecting statistical data from both educators and industry leaders across the country in an effort to accurately establish occupational standards and expectations. This includes not only collaborating with larger firms and industry leaders, but also with small and medium-sized companies that may not become involved without some encouragement and support.

Although the NQA is taking the lead in data collection and compilation, industry leaders will ultimately be in charge of developing the occupational standards. Once completed and approved by the NQA, these standards will help vocational educators better prepare students to fulfil the employment needs of industry. Indeed, educators and trainers will be able to more accurately develop curricula for their students, while UAE-based firms should be able to increase operating efficiency and therefore become more competitive. Likewise, recent graduates will be more competitive in the local and international job markets.

**GENERATING INTEREST:** Perhaps the single most challenging obstacle confronting vocational educators is a general lack of interest in technical training programmes. Indeed, currently only 3% of post-secondary graduates pursue vocational training, according to recent data from ADVETI. Lower enrolment numbers in technical programmes can be largely attributed to the higher salaries associated with university degrees. Resolving this issue requires educators to engage both industry and chambers of commerce, in particular to reform areas of labour law. "There is a need to further develop the apprentice culture within the emirate as well as improve the perception of technical and vocational training," according to Al Hammadi. "This will help close the gap between education and industry as well as create on-the-job training opportunities."

Changes are afoot that may help drive up enrolment numbers. In the past, most secondary graduates, regardless of past academic performance, have been able to find a place at one of the UAE's Higher Colleges of Technology (HCT). The largest federal university, HCT recently raised its standards for admittance, which has resulted in a sharp reduction in admissions. While HCT campuses across the UAE accepted a total of around 8000 students in 2010, this figure fell to just over 4200 admitted students in 2012.

**ADMISSIONS:** In addition to encouraging more nationals to pursue vocational careers, the new admissions policy is expected to decrease the university drop-out rate and free up funds currently used at HCT campuses for remedial studies in maths and English. In the past, large numbers of incoming HCT students have had to enrol in at least one year of remedial classes, with some students dropping out before completing their first year of remedial coursework.

Educators recognise that not all those offered a place at a technical training institute would enrol. However, vocational education's reputation is notably improving and the transfer system between vocational training and traditional university studies is becoming more flexible. Vocational students who retake their pre-university exams and receive qualifying marks will now be able to transfer to a federal university. Knowing that a traditional degree is still possible, more students may in fact try vocational training.

**PARTNERSHIPS:** One indicator of the vocational education sector's growing strength is the variation of companies and institutions involved with technical training. The Abu Dhabi Tourism & Culture Authority (TCA) (see Tourism chapter), for example, is implementing training courses to raise the professionalism of Abu Dhabi's tourism and hospitality labour force. Workshops are held throughout the year and are offered free of charge for UAE nationals. The TCA has also implemented a number of training courses with the collaboration and support of ADVETI.

Twofour54, an Abu Dhabi-backed media free zone, offers training to media students in the MENA region through its *tadreeb* academy (meaning "training" in Arabic). Twofour54 tadreeb is partnering the BBC, Thomson Foundation and Thomson Reuters Foundation to offer over 200 courses including video journalism and social media skills to digital audio techniques and writing for radio programmes. Courses can be customised to clients' specific needs and requirements, and are made available on demand (see Media Chapter).

Etihad Airways has also taken an active role in the vocational education sector. The airline carrier recently signed a memorandum of understanding with the Vocational Education Development Centre (VEDC), a subsidiary of ADVETI. According to the agreement, Etihad will sponsor 20 students at VEDC every year, and offer employment to those who complete the training course. All 20 students will be enrolled in a programme designed by VDEC to fulfil the objectives of the airline

THE PETROLEUM INSTITUTE

*Message from the Acting President and Provost*

**AHLAN WASAHLAN!**

***Greetings from the Petroleum Institute – a diverse, stimulating and inviting community committed to your success.***

The PI was launched in 2001 to provide academic programs leading to degrees in the engineering fields and applied sciences; foster the creation of knowledge that benefits the regional oil and gas industry; operate as a leading international educational and research center for the oil and gas industry; and provide continuing education opportunities to professionals in the petroleum industry at large. The PI is regionally known for its excellent academic programs in engineering and applied science as well as opportunities to conduct research.

We enjoy a very committed and high-achieving student body and an exciting research agenda. Our Women in Science and Engineering (WISE) comprise forty percent of the total enrollment at the PI; and there are active professional societies in every discipline. The PI is financed and governed by Abu Dhabi National Oil Company (ADNOC) and its international partners (British Petroleum, Shell, Total and Japan Oil Development Company). We collaborate with many world renowned universities. We award scholarships to all the undergraduate and graduate students. All of this allows PI to offer a rich educational experience that few institutions can match.


The strong partnerships with the oil and gas industry gives our post-graduate students not only access to global leaders in their fields but also research funding not found in many universities. With the unique collaboration between education and industry students prosper and succeed because of the educational opportunities and research prospects at the PI.

**Dr. Ismail A. Tag**

**Petroleum Institute**
**Address:** PO Box 2533, Abu Dhabi, UAE
**Tel: Male students:** +971 – 2 – 607 5858 **Female students:** [illegible] **Fax:** +971 – 2 – 607 5518
**Website:** www.pi.ac.ae

Mugheer Khamis Al Khaili, Director-General, ADEC

# Developing well-rounded students

## OBG talks to Mugheer Khamis Al Khaili, Director-General, Abu Dhabi Education Council (ADEC)

**How are the government and ADEC going about improving teaching techniques and quality assurance within the education sector of Abu Dhabi?**

**AL KHAILI:** ADEC's mandate is to provide students with critical thinking, problem solving, research and communication skills. Holistic reform is needed and all education areas are under review. The New School Model will transform education from rote to active learning methodology and since Abu Dhabi's future leaders will need a strong grasp of the English language, science and industry, the new model is bilingual. In the past year, 52 public schools have been closed and 29 new state-of-the-art schools have been built. Some 2000 licensed teachers from English-speaking countries have come to Abu Dhabi to enhance the English-language portion of the new curriculum and move the education system forward to a more active learning style.

In the last two years, there has been considerable investment by ADEC in the professional development of teachers to assist in changing their methodology in classrooms, including the deployment of 1600 trainers from public-private partnership providers. We have introduced a reform of assessment methods to help improve individual students' progress. System-wide in school inspection is in place to help assure the progress of schools against ADEC's standards. In addition to a new education programme, all schools are being connected with high-speed wireless internet, and all government schools have been inter-connected.

**What are the differences in changes taking place in private versus public schools in Abu Dhabi?**

**AL KHAILI:** Private schools are crucial and the sector is aiming to create a balance, because current demand for private institutions is higher than the supply.

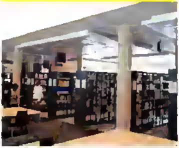
Our focus is on improving the quality of private education through regular inspection. This is a new initiative undertaken to ensure that private schools provide the students with the minimum standards that ADEC will accept. These cover school buildings, curriculum, students' outcomes and welfare, and value for money for parents. Public school quality improvement is also important to the government. The UAE was 21% behind the Organisation for Economic Cooperation and Development (OECD) average in skillsets needed for students' future success, but was ranked highest in the Arab world. There is still a lot of work to be done.

**What have been some of the outcomes and success indicators of the reforms currently being implemented in the education sector?**

**AL KHAILI:** The current priorities are to produce quality international students, make education accessible to every child regardless of whether they are UAE citizens or expatriates, improve education quality to meet minimum global standards and advance Abu Dhabi's human resources base. To measure itself internationally, Abu Dhabi is adopting international standards and regulations. In 2009, we piloted tests through the Programme for International Student Assessment and used them as an example to create our own testing procedures. Our tests measure maths, sciences, English and Arabic, and studies have shown a year-on-year improvement. Furthermore, we believe failing schools cannot be tolerated, and must be fixed or closed down. To help improve schools, ADEC is working to expand core subjects that will produce an excellent calibre of students.

**Are there changes to the curricula to ensure higher enrolment for technical degree programmes?**

**AL KHAILI:** The government's Human Capital Planning Committee will specify which courses are mandatory in Abu Dhabi's national and international universities. There must be a focus on technical industries such as oil and gas, renewable energies, developing microchips, health and education. Our priority is to give students the skills they need to become critical thinkers, problem solvers, researchers and global communicators that can work in a team environment, and to provide various pathways to achieve their career aspirations.



Better design standards are being pursued across the sector

# Private alternatives

## Supply and demand both rise as investment flows in

While Abu Dhabi's government schools are currently undergoing improvements such as a holistic approach to curriculum reform known as the New School Model, private education in Abu Dhabi is also rapidly changing. Private school enrolment has grown steadily over the past decade, and older private schools are being closed while investors and government regulators are planning the construction of a number of new schools.

**FACTS & FIGURES:** According to data from the Statistics Centre – Abu Dhabi (SCAD), a total of 181 private schools were in operation in the emirate during the 2010/11 school year, six more than were operational in 2000/01. The vast majority, 113 in total, were located in the Abu Dhabi region of the emirate. The remaining 68 schools were mostly in Al Ain, with only nine in the less populous region of Al Gharbia.

While over 95% of Abu Dhabi's private schools were multi-stage institutions during 2010/11, curricula used in these schools varied widely. At roughly 25%, the Ministry of Education's curriculum was the most commonly taught, though British and American curricula were also popular with 19% and 18% respectively of private schools using these syllabi. The Indian curriculum was the fourth most widely used according to SCAD figures.

Around 180,000 students were enrolled in private schools during the 2010/11 academic year. This represents a dramatic increase of almost 50% in private school enrolment over the past five years. SCAD data reports that around 120,000 pupils were registered at private school in 2005/06. The total percentage of pre-school-grade 12 (P-12) students enrolled in private schools also rose over the same period, from around 50% to nearly 60%, according to SCAD.

**VILLA SCHOOLS:** Private school education in the emirate is regulated by the Abu Dhabi Education Council (ADEC), which was set up in 2005 and has devoted significant attention to developing a 10-year, P-12 education strategy that was launched in mid-2009. While this plan largely focuses on curriculum reform in public schools, the strategy also outlines the expansion of affordable and high-quality private education as a priority for the immediate future.

In reaching this second objective ADEC is closing private schools operated out of non-purpose-built facilities while also working with investors to build new facilities. The authority has started this process by working to close all of the emirate's villa schools by the 2013/14 academic year. These schools are typically operated out of villa housing and are often attended by expatriates. ADEC aims to assist villa school owners with the construction of better facilities.

The government authority began to implement this strategy three years ago during the 2009/10 school year. Starting with 72 villa schools, 31 had been closed by July 2010, according to ADEC figures. Six villa schools serving almost 4700 students were closed between March and July 2012, and two more are scheduled to close by the end of the 2012/13 school year.

ADEC has stated that it is prioritising villa school pupils and is taking measures to assist and support their transition to improved facilities. There are purportedly 32 new projects to construct new schools, one of which is a merger between two schools.

**DESIGN STANDARDS:** All new private schools are required to comply with design standards set by ADEC, including the number of students per teacher and the number of students per room. Some villa schools have been able to avoid constructing new facilities by relocating to buildings previously used by government schools. ADEC has given these schools three years to develop new facilities and relocate elsewhere.

The construction of new buildings will, however, result in increased tuition fees for some students. Villa school owners with new buildings have agreed with ADEC to cap tuition fees at a 25% increase over previous rates for all students who studied at the school before new facilities were built. This reduced fee agreement does not apply for incoming students from a different school, however. ADEC also regulates tuition fees at new private schools entering the market. Rather

As many as 180,000 students were enrolled in private schools during the 2010/11 academic year. The large expatriate population means that several different curricula are in use locally

Authorities are setting stricter criteria to encourage improvements in standards and facilities among operators in private education.

Abu Dhabi is experiencing growing demand from both investors and the local population to develop and expand new and existing private education facilities.

than setting mandatory tuition rates across the sector, ADEC requests investors to prepare a financial study, which must include a suggested tuition rate. ADEC then either approves or disapproves of the suggested fee.

**INVESTORS:** "The regulation of private school tuition rates is a carefully managed process," said Hamad Ali Al Dhaheri, the executive director of ADEC's Private Schools and Quality Assurance Sector. He also noted, "We want to increase access to Abu Dhabi's private schools by ensuring that private education is both affordable and of high quality. At the same time, however, we want the private school sector to be profitable and friendly to new investors."

Not only is the quality of education at villa schools being improved, new investors are also entering the market in an attempt to meet the rising demand for private education in the emirate. As of this summer, 30 investors had bid on four plots of land for the purpose of constructing new private schools, according to ADEC. These vacant plots are located in the Bani Yas, Al Shahama, Al Falah and Khalifa City B areas.

Although ADEC works with a number of other government bodies to identify land availability, the process is relatively flexible and, as of mid-2012, the total number of plots to be allocated for future private schools had not been specified. Notably, ADEC works to make sure that land rent is affordable to help investors construct purpose built, high quality schools accessible to low-income families. According to ADEC, a 30-year land lease costs just over Dh0.01 ($0.003) per sq metre, with plot sizes varying from approximately 16,000 sq metres to 27,000 sq metres.

In June, ADEC organised a workshop for potential investors. The event outlined leasing and construction procedures, including financial and technical stipulations and document submission policy. The organisation also explained that plots will be allocated largely depending on the curriculum taught by each school, it aims to ensure that new private school construction matches market demand for different curricula among the various national groups resident in the emirate.

**LOCAL CULTURE:** While ADEC encourages private schools to teach a number of different curricula, the authority also hopes to strengthen local cultural awareness in schools that cater mostly to expatriates. Programmes are being developed to increase students' understanding of UAE traditions and culture.

"Many private school students in Abu Dhabi are not from the UAE," said Al Dhaheri. "We welcome foreign methods of teaching and encourage the continuation of curricula that have already proven successful elsewhere. However, we do not want expatriate students to grow up in isolation from UAE culture and tradition. By living in our country these students need to understand our history, in addition to that of their own. Everyone in Abu Dhabi, locals and expatriates alike, benefits from this approach to education."

One forthcoming private school in the emirate is expected to provide students with a wide variety of different curricula. The Amity Education Group (AEG), a private, non-profit group of schools and universities, recently announced plans to open an Amity International School in Abu Dhabi. AEG's first campus as were built in India, however, the organisation has since expanded internationally and now caters to 55,000 students across 15 campuses, according to AEG data.

The organisation's planned Abu Dhabi school will provide a range of curricula to students, including an Indian secondary school curriculum (known as CBSE), international baccalaureate studies and the UAE curriculum. The school will meet the educational requirements of almost 70 nationalities living in the emirate, according to a mid-2012 report in the *Hindustan Times*.

**FUTURE GROWTH:** New investors make up an important component of Abu Dhabi's developing P-12 education sector. ADEC has reported strong interest from foreign investors in building private schools, a positive sign for an emirate with a large expat population interested in private schooling. "The demand for private education in Abu Dhabi is tremendous," said Al Dhaheri. "Investment opportunities for local and international entrepreneurs should not be underestimated."

Higher education institutes require a strong command of English

# Improving linguistic skills

## Encouraging multi-tier options for education and training in English

With English as the language of instruction at many of Abu Dhabi's higher education programmes, English proficiency can sometimes hinder students seeking post-secondary school education. While remedial courses are available to help high school graduates improve their language skills before entering university or other tertiary-level institutions, authorities in recent years have started to focus on improving English competency earlier in the schooling process, when it may be easier for students to learn a second language.

**OLD SCHOOL:** Nearly 90% of high school graduates in the UAE lack the English skills necessary to handle university courses, Ryan Gjovig, the head of the Common Educational Proficiency Assessment (CEPA) at the National Assessment and Placement Office of the federal Ministry of Higher Education and Scientific Research (MHESR), told the local media in May 2012. Passing the two-part CEPA exam – there are sections for English and maths – is required for entry into the country's three federal universities: UAE University (UAEU), the Higher Colleges of Technology (HCT) and Zayed University (ZU). In 2012, some 18,000 of the country's 23,000 grade 12 students sat for the CEPA exam.

Students with a CEPA English score above a certain level are eligible to enter directly into a degree programme at any of the three federal institutions. This minimum varies by university – ZU requires a score of 185 while this cut-off stands at 180 for HCT and UAEU. However, scoring below this level does not necessarily constitute a rejection. A score above 150 guarantees admission, but these students are required to attend foundational courses before commencing fully.

The details of these remedial courses vary. For example, ZU offers its Academic Bridge Programme to students who score below 185 but at or above 150. This six-stage curriculum focuses on improving English-language reading, writing, and speaking and listening skills. The CEPA score determines the level into which students are placed in the Academic Bridge Programme. For more advanced applicants, they can often fulfil their requirements in just one term, but completing the entire six-level course can take up to two years.

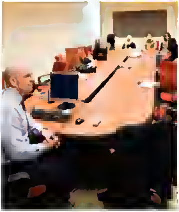
At HCT, more than 90% of students begin with remedial courses, and some 30% of the federal universities' budget is allocated to these foundational classes, according to local newspaper *The National*. These figures are perhaps not surprising given that the average score on the English section of the CEPA is 160.

**CHANGES AFOOT:** According to The National even for those who enrol in remedial courses, they are by no means a panacea and a number do not complete the programme. Indeed, up to 20% leave during the first year, often because they are failing. The drop-out rate is higher for male students, as they often accept attractive job offers with the military or police.

This phenomenon has not gone unnoticed by officials with Sheikh Nahyan bin Mubarak Al Nahyan, the minister of higher education and scientific research as well as the president of ZU, calling for reform of remedial English programmes at the nation's universities in 2011. ZU thereafter altered its most basic English course, lengthening it from nine to 12 weeks. Since the new structure was introduced, pass rates have started to improve, officials from ZU told the local press in November 2012. Other changes set to be rolled out in the near future include iPads in Education: students at all three federal universities who are enrolled in remedial English classes will now use the tablet computers to help them learn the language (see analysis).

Despite these improvements, some students still may choose to leave these foundational courses. Vocational programmes represent one option. Students at one of the largest vocational programmes in the emirate, the Abu Dhabi Vocational Education and Training Institute (ADVETI), are obligated to take a one-year course in English before beginning their diploma programmes. Nonetheless, the vocational setting may be more appropriate for students who struggle with the remedial English courses at their universities. For such individuals, completing a diploma at an institution such as ADVETI

As many as 90% of high school graduates in the UAE lack suitable proficiency in English to complete post-secondary school education. The government has set its sight on improving this.



A diverse model is being established to strengthen bi-literacy

Up to 6000 educators are being recruited to receive specialised English-proficiency training to help meet education goals set by the government.

may make more sense, either as a prelude to university or in lieu of it. The transfer system between vocational institutions and universities has become more flexible, which may attract more students into the vocational system (see analysis).

**A NEW APPROACH:** In recent years, education authorities in Abu Dhabi have started to place an emphasis on English-language competency in the emirate's school system as part of their New School Model (NSM).

Launched in 2010, the NSM is an educational reform programme that introduces a new curriculum and unique teaching methods to encourage creative thinking and problem solving by the student. Some of the specific changes proposed by the scheme involve improved teacher quality, better school environment and a focus on bilingual education, with the new curriculum aiming to prepare students to read, write, speak and understand both Arabic and English with a high degree of fluency. As explained by the Abu Dhabi Education Council (ADEC), a governmental entity established in 2005 that oversees all aspects of the education sector within the emirate, "Literacy in both languages is essential to the personal success of Abu Dhabi's students in both higher education and their future careers."

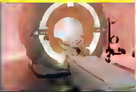
To help meet its bi-literacy goal, ADEC has hired a number of overseas educators to increase native English fluency among the teaching staff. Moreover, in October 2012 the council announced that it was launching a new professional development programme to boost local teachers' English-language proficiency. The scheme could begin as early as late 2012 and is aimed at having approximately 6000 educators meet required scores in standard English proficiency tests, such as the Test of English as a Foreign Language or International English Language Testing System (IELTS). The minimum will depend on the teacher's specialty, for example with science and maths teachers required to achieve a score of 5.5 on the IELTS. For English language teachers, this level has been set higher, at 6.5 or above.

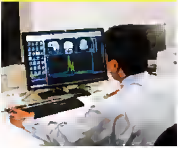
At present, about 90% of English-language teachers at public schools meet the required proficiency levels, although this figure falls to around half for teachers of science and maths, according to data provided by ADEC. Mugheer Al Khaili, the director general of ADEC, told local media in October 2012 that strengthening the skills base of the emirate's educators was vital to their ability to perform their roles in a changing school system. "Like athletes who train to reach the highest standards, principals and teachers must also dedicate themselves to continuous professional development," he said when discussing the new training regime.

The success of Abu Dhabi's NSM will depend both on how quickly it can bring its own educators up to the standard required by the reforms and also on the levels of resourcing provided to schools. Any delays in the scheme will see bottlenecks further down the line, with graduating students needing further remedial assistance to qualify for entry into higher education. However, if implemented properly, the NSM could result in savings for the government by reducing the need for additional preparatory courses in English and other subjects.

# Health

Universal coverage has brought benefits and challenges
New efforts to import more international expertise
Increased competition between insurance providers
Renewed action to keep the market at global standards

A large number of new facilities have opened in recent years

# Vital signs

## As the sector continues to expand, partnerships with the private sector are being encouraged

The sector has seen a number of changes in recent years, including a regulatory overhaul in 2007 which resulted in the creation of two new entities: SEHA and HAAD.

Though efforts continue to expand the private sector's participation in the industry, government-subsidised facilities still accounted for 74% of inpatient encounters in 2011.

The introduction of compulsory medical coverage and a significant population increase have fuelled the growth of Abu Dhabi's health care sector in recent years, with a number of new facilities opening. This expansion is expected to continue, with both the government and the private sector planning new hospitals for the near future. This additional capacity should help stem the flow of Emirati patients from Abu Dhabi to international medical facilities, which in turn could reduce the financial burden on the government of paying for such services. Other savings could also come from changes to the health insurance system that will encourage more efficient behaviour on the part of providers, as well as public health programmes designed to reduce the prevalence of non-communicable diseases like diabetes and cancer.

**MARKET STRUCTURE:** Over the last decade, the health care system in Abu Dhabi has undergone several major reforms, including the 2007 split of the General Authority for Healthcare Service into two entities: the Abu Dhabi Health Services Company (SEHA) and Health Authority – Abu Dhabi (HAAD). SEHA took over the role of state provider and owns all public health care assets, in addition to developing new medical facilities when necessary. Meanwhile, HAAD acts as the market regulator, developing policies and standards for the health care sector, and licensing all health care providers and payers (i.e., insurers), both from the public and private sectors, as well as enforcing rules and regulations. The authority also sets the larger strategy for the health system, monitors the population's health and works to create awareness of healthy living standards.

Abu Dhabi is aiming to increase private sector participation in the health care sector, but for now, government-subsidised SEHA facilities still provide the majority of inpatient services – 74% of inpatient encounters and 66% of the emirate's 3659 hospital beds in 2011, according to the most recent data from HAAD. Its largest facilities are Tawam Hospital (Al Ain), Al Mafraq (Abu Dhabi), Sheikh Khalifa Medical City (SKMC, Abu Dhabi), Al Ain Hospital (Al Ain) and Corniche Hospital (Abu Dhabi), all of which see more inpatients than the largest private hospital, Al Noor's main facility in Abu Dhabi City. Other major players in the private sector include NMC Healthcare (which, like Al Noor, has hospitals in both Abu Dhabi and Al Ain) and Al Ahalia.

**MANAGEMENT:** While SEHA owns and operates the majority of its hospitals, the organisation has entered into management contracts with international medical institutions for several of its largest facilities. The Cleveland Clinic manages SKMC, while Johns Hopkins oversees the Tawam, Corniche and Al Rahba hospitals. Finally, Vienna Medical University manages Al Ain Hospital. The details of these agreements are not public, but Cleveland Clinic's management contract with SKMC includes a set of SEHA targets related to revenue, productivity, quality and customer service goals, all of which affect an undisclosed percentage of Cleveland Clinic's fee. Since 2011, SEHA has been pursuing the re-centralisation of management for its hospitals. As of November 2012 the contracts held with Bumrungrad (Al Mafraq Hospital) and Vienna Medical University (Al Ain Hospital) have been terminated.

Meanwhile, on the outpatient side – which accounts for about 93% of health care system encounters – SEHA plays a smaller role, treating around 38% of all outpatients in 2011 at its hospitals and primary health centres, according to HAAD data. In 2011 the largest non-hospital providers in this market were Advance Cure Diagnostic Centre, Island Falcon Medical Supplies, New National Medical Centre, Prince Specialist Medical Centre, Al Noor Hospital Clinics and the Specialist Diabetes Treatment and Research Centre.

Finally, it is important to note citizens of Abu Dhabi also have the option of travelling abroad for treatment when local options are not available, through a system that is managed by the international patient care department of HAAD. Requests for treatment at a foreign institution can come from individual patients or from doctors in government-owned hospitals. A

medical committee then determines whether or not treatment is available either at one of the UAE government or private hospitals, recommending sending the patient abroad when it is not.

**KEEP IT LOCAL:** According to the Abu Dhabi Chamber of Commerce, UAE residents spent approximately $2bn on treatment at foreign facilities in 2009, the most recent year for which full data is available. However, the government has been actively seeking to slow this outsourcing of care outflow.

In part this is being done through the development and expansion of SEHA's facilities, but also through Mubadala Healthcare, a division of Mubadala Development Company, an investment vehicle mandated to develop the emirate's economy alongside its primary commercial remit to generate financial returns via its domestic and international portfolio. Mubadala Healthcare, one of the newer divisions within the development company, has played an important part in increasing the role of the private sector in the emirate's health care system. It has also reduced the need for patients to travel abroad to seek treatment.

**THE MUBADALA MODEL:** Mubadala Healthcare's business model is to establish long-term partnerships with international medical institutions for developing greenfield projects to deliver high-quality health services. While the foreign partners provide medical expertise, Mubadala brings local know-how. In the early stages of a project, this involves working with local officials to secure the necessary licences and oversee construction of the facility. Mubadala also remains active on the administrative side of the business once the facility is operational. Moreover, financial agreements between Mubadala and its foreign partners are structured such that their interests and goals are aligned, with both parties sharing equally in the implementation and success of projects.

Mubadala works closely with HAAD to identify areas where there is a need to build domestic capacity, according to Suhail Mahmood Al Ansari, the executive director of Mubadala Healthcare. However, he added that the firm evaluates whether or not it is possible to provide these services in a financially viable way – as is the case with its parent company, the health care unit has a commercial mandate to be profitable. Another factor entering the calculation is the likelihood of finding a foreign partner committed to transferring knowledge to the local community and willing to enter into a long-term partnership. As Al Ansari told OBG, Mubadala looks for "good chemistry" and a willingness to stay in the region for the long run. At times Mubadala has reached out to potential foreign partners, but Al Ansari told OBG international medical institutions looking to enter the region have also approached it.

To date, Mubadala has been involved in the creation of several specialist outpatient and ancillary service facilities. These include the Imperial College London Diabetes Centre, which initially opened in 2006 in Abu Dhabi City and expanded into a second facility in Al Ain City in 2011. The Abu Dhabi Knee and Sports Medicine Centre also launched in 2006 and has performed

Agreements that expand local field-specific expertise are under way

thousands of procedures since opening. In 2010 the National Reference Laboratory, a partnership with Laboratory Corporation of America, was set up in Dubai, followed by a second lab in Abu Dhabi in 2011.

The Tawam Molecular Imaging Centre, which opened in 2010, is a specialist imaging facility located on the campus of Tawam Hospital in Al Ain City and operated by Johns Hopkins. The centre offers PET.CT diagnostic imaging systems for the detection and management of cancer, as well as cardiovascular, neurological and other diseases. The Wooridul Spine Centre, a partnership between Mubadala and the South Korean spine care specialists Wooridul, launched an outpatient facility in 2008 in Dubai. The development of a larger inpatient facility is currently under way in Abu Dhabi and will be part of Healthpoint, a new specialty hospital, scheduled to open in 2013.

**CLEVELAND CLINIC ABU DHABI:** Mubadala Healthcare's biggest project yet – Cleveland Clinic Abu Dhabi – is being constructed on Al Maryah Island, the capital city's new central business district, and will have 360 beds (expandable to 490), with five clinic floors, three diagnostic and treatment levels, and 13 floors of critical and acute inpatient units.

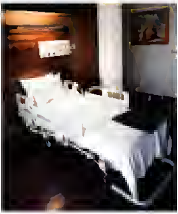
The hospital will be divided into five institutes (heart and vascular, digestive disease, neurology, ophthalmology, and respiratory and critical care) and seven

There is currently a sizeable population of nationals who seek health care abroad, and the government is working to reduce this by raising institutional standards domestically.

**Selected cardiovascular indicators, 2011** (% of population)

| | Obesity | Hypertension | Diabetes | High lipids | Smoking |
|---|---|---|---|---|---|
| National | | | | | |
| Total | 35 | 17 | 21 | 36 | 11 |
| Male | 33 | 24 | 22 | 50 | 26 |
| Female | 38 | 12 | 20 | 26 | 0.8 |
| Expatriate | | | | | |
| Total | 20 | 35 | 15 | 18 | 25 |
| Male | 17 | 33 | 14 | 18 | 29 |
| Female | 32 | 41 | 18 | 18 | 6.6 |

SOURCE: HAAD



Mandatory insurance has increased both competition and standards

A number of new and expanded health care facilities are planned in the coming years when complete these should greatly expand the emirate's capacity and capabilities

departments (surgical subspecialties, pathology and laboratory medicine, medical subspecialties, radiology, anaesthesiology, quality and patient safety, and emergency medicine). Within each of these units, there will be a variety of specialists. For example, staff at the heart and vascular institute will include heart surgeons, cardiologists, vascular surgeons and vascular medicine physicians.

This system, different from the structure at most hospitals, where internal medicine and surgical services are separate, will allow the hospital to better serve patients, Dr Tomislav Mihaljevic, the chairman of the Heart and Vascular Institute and chief of staff at the clinic, told OBG. Dr Mihaljevic noted this hospital follows a group practice model, as the Cleveland Clinic does in the US. This means that all physicians are salaried and compensated for the quality of care they provide, not by the number of procedures that they carry out. This model of patient centred care can reduce unnecessary services, improving efficiency.

The primary purpose of Cleveland Clinic Abu Dhabi will be to serve the people of Abu Dhabi, followed by the other emirates and in the longer term the larger GCC region. But for now the focus will be on serving local residents, thus reducing the outflow of patients seeking treatment in the US, Europe and elsewhere, according to Dr Marc Harrison, the CEO. In part this will be accomplished by bringing high quality medical staff to the emirate, all of who will be North American-board certified (or equivalent) and many of whom are currently physicians at the Cleveland Clinic in the US. In total, Cleveland Clinic Abu Dhabi is recruiting 170 consulting physicians, as well as about 2000 nurses and allied health professionals. Some 80% of the physician chairs will come from the Cleveland Clinic and approximately 50% of physicians are expected to be brought from North America, with the balance coming from Europe and other areas.

**FURTHER EXPANSION:** Cleveland Clinic Abu Dhabi is just one example of growth in the number of health care facilities, with several hospitals either recently opened or in the works. These include Lifeline Hospital Group's Burjeel Hospital, which was inaugurated in April 2012. The facility, which covers an area of more than 70,000 sq metres and has a capacity of over 200 beds, provides a range of specialised health care services. Looking ahead, Ahalia Medical Group, which currently has a hospital in Abu Dhabi City and 10 medical centres across the emirate, plans to open a 110-bed hospital in Mussafah. Meanwhile, United Eastern Medical Services has started work on Danat Al Emarat, a 250-bed women and children's hospital in Abu Dhabi City, with completion expected in 2013. Finally, Oasis Hospital will replace its 50-bed facility in Al Ain with a new 120-bed hospital that will offer expanded maternal, neonatal and surgical care services.

Brad Kellogg, the senior vice-president of facility management and safety, told local newspaper *The National* that this expansion is necessary. "It is definitely needed, most of our outpatient services are almost always filled to 100% occupancy," he said.

While the private sector is stepping in to add capacity and fill some gaps in specialist areas, the government is still actively building new health care facilities, while at the same time investing in the expansion and upgrade of existing ones. In January 2012 the Executive Council announced that it had approved plans for six hospitals, as well as a medical rehabilitation centre, a dialysis centre, four walk-in clinics, a disease prevention/screening centre, and a special-needs centre.

One of the biggest changes will occur at SKMC, where two new hospitals (general and paediatric) are under discussion to replace existing facilities at the medical centre. At the same time it is currently envisaged that a new women's health hospital will open at SKMC, replacing the Corniche Hospital, which will be closed. In total, bed capacity at the SKMC would rise from 568 to 838. New facilities are also planned to replace the Ghayathi and Al Sila hospitals in Al Gharbia, which could raise the number of beds at each of these facilities from 30 to as many as 80. Meanwhile, at Al Ain Hospital, a major expansion plan is under planning which will progressively increase bed capacity from 371 to 688, with 150 of these beds for acute rehabilitation. Construction is expected to begin in late 2012 and be completed within three years.

**PAYMENT SYSTEM:** There are a few explanations for the recent growth in health care facilities, both in the private and public sector. One is simple: demographics. Between 2005 and mid-2011, the number of nationals and expatriates living in the emirate grew from 1.4m to 2.12m, according to the Statistics Centre – Abu Dhabi. Moreover, this growth is expected to continue. According to the Urban Planning Council, Abu Dhabi's population may reach over 4.6m by 2030.

The emirate's decision to implement a system of mandatory health insurance has also affected demand. Since 2006, all expatriates have been obligated to enrol in a health insurance plan. HAAD then introduced the Thiqa programme in 2008, which provides universal medical coverage to UAE nationals, who are required to become members. These legal changes have pushed up demand across the board, but particularly for expatriates, many of whom previously did not have insurance and had to pay cash when seeking medical services. It has also created more robust competition in the medical service and insurance markets, which

**Largest hospitals by bed size, 2011**

| | Beds | Physicians | Inpatient visits (000) |
|---|---|---|---|
| SEHA – SKMC | 552 | 470 | 11.9 |
| SEHA – Tawam | 435 | 443 | 15.4 |
| SEHA – Al Ain | 387 | 305 | 14.5 |
| SEHA – Al Mafraq | 350 | 314 | 11.7 |
| Zayed Military | 314 | 149 | N/A |
| SEHA – Al Corniche | 285 | 127 | 14.9 |
| Madinat Zayed | 148 | 59 | 3.5 |
| Al Rahba | 115 | 106 | 7.4 |
| Al Noor – Airport Road | 106 | 132 | 6.2 |
| Al Noor | 95 | 153 | 5.5 |

SOURCE: HAAD

A mandatory insurance programme for all residents may improve quality and lower prices for consumers

has the potential to improve quality and lower prices for consumers. "There has been a renewed interest in private sector health care since the introduction of the mandatory insurance system," Zaid Al Siksek, the CEO of HAAD, told OBG. "Previously only a small segment of the industry was addressed by the private sector, but companies are now investing in more complex services and other areas of health care delivery which were previously only addressed by the government."

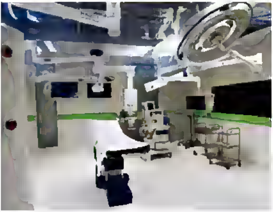
HAAD has continued to adjust the emirate's universal health care system, perhaps most notably in 2010 with its decision to require all agreements signed between providers and insurers to be based on a standard HAAD contract (see analysis).

This document specifies that all reimbursement for inpatient services will be categorised into diagnosis-related groups, effectively making it impossible for hospitals to bill on a fee-for-service basis when covering insured patients. This change will encourage hospitals to be more efficient and will give the government a better sense of its projected expenditures when it comes to the Thiqa programme and the government-subsidised basic insurance plan.

**PUBLIC HEALTH:** Changes to the insurance regime could well reduce costs in the care system by encouraging efficiency and increasing competition among providers. However, the government has also taken steps to lower its financial burden by investing in public health initiatives, which can reduce costs by facilitating earlier detection of medical problems and also by helping to avoid them entirely.

For example, HAAD has worked with public and private sector partners through campaigns, screening and other health promotion activities. These include a partnership with the Susan G Komen Foundation to help raise awareness about the importance of breast cancer screening. The health authority has worked with the Abu Dhabi Education Council, Abu Dhabi Food Control Authority, Zayed Higher Organisation for Humanitarian Services and the School Health Depart-

HAAD has continued to adjust the universal health care system. In 2010 the organisation required all contracts between providers and insurers to be based on a standard template it provided.



Initiatives put in place by the government are meant to ensure standards remain at international levels

meant to help ensure that students develop healthy habits and receive quality care.

The local medical community has welcomed programmes like these. "Society and government are paying very close attention to encouraging activity, smoking cessation and healthy diets. Schools have curricula now and my sense is that they are taking a proactive approach to public health, which is impressive," Harrison told OBG. He also noted Cleveland Clinic Abu Dhabi would like to become involved in government wellness campaigns, either in conjunction with existing efforts or by designing complementary programmes.

Investments in public health are important in the emirate, where rates of chronic diseases related to lifestyle such as obesity, diabetes and cardiovascular diseases are high. Indeed, in 2011 diseases of the circulatory system accounted for almost 38% of deaths, according to HAAD. However, the government is working to reduce these rates. Dr Jeffrey Staples, the CEO of SKMC, told OBG, "Preventive medicine is very important; proper eating habits, regular fitness and an overall healthy lifestyle will drastically reduce the frequency of lifestyle-related diseases within the country. The government is taking steps to increase public awareness in these issues," he said.

Since 2008, the HAAD has led a population-wide prevention programme targeting cardiovascular disease risk factors, including diabetes. The programme is called Weqaya (Arabic for "prevention"). More than 94% of UAE national adults have been enrolled, and early data suggests the programme has led to a significant improvement in clinical outcomes.

In late 2012, HAAD will launch a novel market-based approach by licensing three disease management programme (DMP) providers under Weqaya. DMP providers will be able to monitor their health status through HAAD's secure data systems, and will be directly reimbursed for measurable improvements in their health (a model called "pay-for health"). This programme is expected to enable innovation in mobile devices and wellness interventions, and is under close scrutiny by other markets with high burdens of chronic disease.

**HUMAN CAPITAL:** Another area in which Abu Dhabi is working to improve the health care system is in the Emiratisation of the labour force. According to data from HAAD, 12.7% of the emirate's 4900 physicians were UAE nationals as of 2011, while this figure stands at 12% for dentists and 1% for nurses.

The challenge presented by these low rates of domestic labour participation is that it increases the rate of staff turnover, with most foreign health care professionals staying in the country for just three to five years. According to some health providers, Emirati patients prefer to see the same doctor over time. As a result, high turnover among facility staff can erode patients' confidence in the health system overall.

The high rate of staff turnover and low participation by Emiratis has not gone unnoticed by HAAD, which is taking steps to train more local staff to work in the medical field. The authority has put in place a number of initiatives to encourage Emiratis to choose a career in medicine, including a residency matching process so that recent medical graduates can receive practical training at hospitals and other facilities.

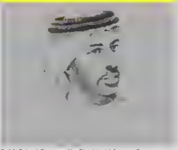
It will take time for these changes to have a significant impact on the availability of local staff, but they are starting to take effect, with a number of educational institutions working towards a goal of placing more locals in the medical field.

In the meantime, HAAD is also making it easier to license physicians coming from abroad, a helpful development given continued expansion in the number of medical facilities in the emirate. HAAD now offers a total of 17 international test centres for medical professionals, which makes it easier and faster to recruit and license physicians. It is also less expensive for hospitals that are doing the recruiting, as they no longer have to shoulder the expense of bringing candidates all the way to Abu Dhabi just for testing. Another move that may make it easier to attract physicians is dual licensing with Dubai – since April 2012, any doctor licensed to practise in one of the two emirates will be allowed to practise in the other.

**OUTLOOK:** In a relatively short span of time – certainly less than a decade – the health care system in Abu Dhabi has undergone a profound shift, with the introduction of mandatory health insurance, a new structure for the government's role in the sector, and a number of additional public and private health care facilities. Nonetheless, while the private sector has shown considerable growth in the last few years, it is likely that there remains room for investment in new facilities, particularly in certain areas that HAAD has identified as underserved.

These areas include intensive and critical care medicine, emergency medicine, neonatology, cardiology, psychiatry, obstetrics and gynaecology, paediatrics and oncology. Moreover, with HAAD having already taken steps to reduce challenges such as recruiting and retaining professional staff, investment in this sector is poised as an even more attractive opportunity

HAAD now offers 17 international test centres for medical professionals, which has reduced recruitment and licensing times.



Saif Al Qubaisi, Chairman, Abu Dhabi Health Services Company

# Increasingly effective

## OBG talks to Saif Al Qubaisi, Chairman, Abu Dhabi Health Services Company (SEHA)

**How would you describe the landscape for primary, secondary and tertiary health care? Is there a greater need for medical screening and prevention?**

**AL QUBAISI:** We have a young population. Many of the health problems that arise with age are not as prevalent here because so many people are under 30 years old. This demographic structure makes primary care one of our most significant opportunities. The majority of our 5m patient encounters are through outpatient clinics with Ambulatory Healthcare Services, our satellite clinics attached to our acute care hospitals or emergency rooms. While many of these patients fall into the category of secondary care, in that they have chronic conditions requiring continual check-ups and follow-ups – such as diabetes – they are not so ill as to require hospitalisation or tertiary care.

In terms of medical screening, we do all the medical exams for the government. For expatriate workers and that screening is catalogued by Health Authority – Abu Dhabi (HAAD). Insurance companies gather this information and use it to help set rates based on demographics and statistical data. For example, we already know that our incidence of diabetes is too high. Therefore, patient education is critical, especially for young people. We work very hard to help patients understand health conditions and how better living habits can reduce their chances of requiring medical intervention.

**What steps need to be taken to develop soft infrastructure for the local health industry to keep pace with the significant investments being made?**

**AL QUBAISI:** Emiratisation, education, effective recruiting and a more streamlined licensing process are the keys to our soft infrastructure development.

Emiratisation is the most important component, but our goal is to encourage Emiratis to enter the health care field and to make Emiratisation in the health sector a reality, many steps are currently being taken in this regard. Placements and trainings in our hospitals are being introduced as an important part of this transition. We at SEHA have hundreds of clinical jobs opening every month that pay well, offer good benefits, job security and advancement prospects, and we continue to support Emiratis to take advantage of these opportunities. We must educate the public regarding these opportunities and encourage young people in particular to see the future the health industry offers.

Certainly, recruitment is a challenge everywhere in the world, even the US, UK and Germany are recruiting foreign professionals to help them meet their health care needs. We have a challenge too in this area but are meeting our targets. Licensing of medical professionals is under the purview of the government and HAAD and they are working to ensure that only qualified personnel are licensed to work in the emirate.

**How are technology and telemedicine being used in the health care system in Abu Dhabi?**

**AL QUBAISI:** SEHA is the only large-scale public health care system in the Middle East and North Africa with a fully linked, online medical records system. A SEHA customer or patient visiting any of our hospitals or clinics in Abu Dhabi will have their medical records accessible online to authorised SEHA personnel.

For example, if a patient that lives in Abu Dhabi City and who keeps his or her health records at Sheikh Khalifa Medical City becomes ill during a weekend in Al Gharbia, the records are available in any SEHA location. These records show what the patient's most recent tests are, the doctor's last notes and the most recent x-rays. This is known as e-medicine.

We are also using more traditional forms of e-medicine internally, especially in Al Gharbia. It is a huge region, so it is not feasible to have specialists in every location. As a result, we use telemedicine to deliver services to locations that need specialist medicine, but lack the staff to deliver it. We have the ability to monitor cardiac patients, watch their progress, consult on x-rays and review test results in real time remotely. This has helped deliver care locally, and is increasingly effective.

The basic plan is offered at a subsidised price of $163 per year

# In good hands

## The implementation of mandatory coverage is reshaping the sector

As of 2011 some 1.3m expatriates were enrolled in the government's basic health care plan, with the remaining 1m enrolled in one of a number of enhanced options.

The Health Authority – Abu Dhabi (HAAD) has worked hard to ensure access to health care in the emirate, in part through its successful implementation of a mandatory health care insurance system. Today about 98% of UAE nationals and foreign workers living in Abu Dhabi have medical insurance, a rate that is unparalleled in the GCC region. At the same time, HAAD has also taken steps to structure the insurance system to encourage efficiency, including a 2010 decision requiring all hospitals and insurers to use a standardised contract basing reimbursement on diagnosis-related groups (DRGs) rather than fee-for-service.

**UNIVERSAL COVERAGE:** HAAD was first focused on foreign workers, introducing a law in 2006 that linked health insurance to residence permits. This meant employers of expatriates would be required to offer health insurance to their employees and their families, many of whom had not had access to local health care services previously. To reduce the financial burden for employers, HAAD at the same time set up a "basic" health insurance programme, which represents the mandatory minimum coverage and is offered at a subsidised price of Dh600 ($163) per year. The scheme is administered by Daman, a government-owned health insurance company established in 2005.

According to data from HAAD as of 2011 some 1.3m expatriates were enrolled in the basic plan. The rest of the expatriate population – about 1m people – is under one of the many so-called enhanced plans, which offer benefits beyond the coverage afforded by the basic plan. The three largest players in this enhanced product market are Daman, the Abu Dhabi National Insurance Company (ADNIC) and Al Dhafra, which combined accounted for more than 50% of the market in 2011. Finally, all UAE nationals are required to enrol in the Thiqa plan, which was launched in 2008 and had about 440,000 members as of the end of 2011. Daman acts as the administrator for the plan, which offers Emiratis access to a large number of public and private health care providers. Members are charged no premiums and are not required to pay for medical services provided at any facility with which Daman has contracted, with the exception of co-payments or deductibles for certain services. In the past, nationals were able to enrol in both Thiqa and a private plan through their employer; however, HAAD has not permitted this since 2011. Insurance companies are now able to sell "top-up" products to nationals, which provide supplementary coverage, such as certain pharmaceuticals benefits that are not available from the government plan.

These same three categories – basic, enhanced and Thiqa – also determine how providers are reimbursed. For those patients that are covered by the basic plan, the government sets the tariffs that providers receive. For services rendered to patients enrolled in one of the enhanced plans, the private sector insurance companies and providers negotiate payments. For Thiqa plan participants, the health care provider is paid the equivalent of the highest rate negotiated under Daman's enhanced plans.

**IMPACT:** Perhaps the most obvious effect of the implementation of mandatory health insurance has been a rise in demand for medical services. This is particularly true for expatriates, many of whom would have previously had to pay cash to see a physician or seek treatment at a hospital. But more importantly, the new system has introduced elements of competition to what was historically a sector primarily run and financed by the government.

Claims are now processed through an electronic system, which has greatly improved the amount of data available for analysis and research.

In addition, the processing of insurance claims through a mandatory electronic data system has greatly improved the availability of data, including rich economic and clinical data. The HAAD's systems are among the most advanced in the world, and its data is routinely utilised as the basis for decision making at the system level, alongside performance benchmarking at the provider and physician level. Through the Weqaya programme, this data system is now being utilised to improve the treatment of chronic diseases

This competition has played out on a number of levels. First, mandatory insurance means patients are allowed to choose where to seek treatment, without having to consider the financial consequences of doing so, as long as the provider is part of their plan. This has created a more level playing field. Providers not only have to work to attract patients, they also compete when it comes to negotiating contracts with insurers. This is not true for the basic product – where the government sets prices – but it does effect enhanced products, which determine Thiqa rates.

Finally, in a competitive insurance market – such as Abu Dhabi's market for enhanced medical insurance, where the largest supplier (Daman) has a market share of only about 32% – insurers are likely to pass on savings to their customers and perhaps directly to the employees to the extent that they bear any burden when it comes to premiums. Insurers compete in the market for enhanced medical insurance by offering employers plans varying by both price and benefits, with contracts typically negotiated on a yearly basis.

While Daman initially was granted certain competitive advantages in the enhanced product market, this is no longer the case. For example, until mid 2008, government-run entities were required to use the state-owned insurer for their employees' insurance packages and until January 2010, the company had exclusive rights for direct billing with all facilities owned by the Abu Dhabi Health Services Company (SEHA), the public health care provider. Since these rules have changed, Daman has remained a major player in the market, but other insurers have done well. For example, the number of enhanced policyholders at ADNIC grew by 68% (from 90,190 to 151,654) between 2009 and 2010, according to data from HAAD, while the enrolment figure at Daman declined slightly (from 301,447 to 299,083). As the number of enhanced product customers at Daman picked up in 2011, there were marked changes in market shares for some other players – most notably a sharp increase for Al Dhafra, which saw its number of enrolees rise from 12,590 to 73,549. These developments suggest this is a dynamic market open for entry by new players or expansion by existing suppliers.

**STANDARDISED CONTRACTS:** The modification in Daman's status was not the only change in the mandatory health care system. HAAD is set to require hospitals and insurers to use a standardised contract that bases inpatient reimbursement on DRGs rather than pay providers on a fee-for-service basis. DRG-based reimbursement models originated in the US during the 1980s and have since been adopted in many countries. Under this type of system, the payer reimburses the hospital based on the average cost of treating patients with similar clinical profiles and requirements for treatment, rather than the actual cost incurred for a particular patient. That is, the payment is set ahead of time, regardless of the number of tests conducted, the patient's length of stay, materials used, and so on. Each DRG can be generally thought of as a "product" offered by a hospital, such as an appendectomy.

Since 2010 HAAD has required all hospitals – both private and public – to use DRGs when submitting claims for patients covered by the basic plan, but as of June 2012, all providers and insurers were required to sign new agreements based on a standard contract provided by HAAD that uses DRGs to price all inpatient services. This standard contract specifies a base rate per inpatient stay, but insurers and hospitals are free to negotiate the DRG-specific weights that are applied to this rate, with the outcome of this negotiation depending on factors like a hospital's cost structure and the bargaining strength of the two parties.

**MARKET REACTION:** Universal insurance has benefitted Emiratis, but it is a financial burden for the government. With the cost of medical care rising faster than inflation, the emirate has good reason to implement strategies designed to slow this rise in prices. The use of DRGs for the basis of reimbursement – when combined with other changes that have been implemented, such as a standard provider contract – may ensure that providers have incentives to be efficient

Insurers currently compete in the enhanced product category by offering employers a choice of plans that vary in both price and benefits.


800-555

## Vision

An internationally recognized food and agriculture organization that contributes to the well-being of the community.

## Mission

To develop a sustainable agriculture and food sector that ensures the delivery of safe food to the public and protects the health of animals and plants while promoting sound environmental and food practices through cohesive and effective policies and regulations, quality standards, research and awareness.

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# Agriculture

Investment in foreign countries to secure arable land
Target to cut sector water consumption by 40% by 2030
Incentives for fish farmers to meet rising demand
A major global producer and exporter of dates

Organic fruits and vegetables are new potential niche markets

# A fresh approach

## Focusing on developing niche products and reducing water usage

Because Abu Dhabi imports the majority of its food, it has chosen to purchase and lease agricultural land in countries that are more fertile. Only nationals and GCC citizens can own land in the UAE. Most farms are owner-occupied but reliant on immigrant labourers

Like much of the Gulf region, Abu Dhabi is largely made up of desert, and as such, agriculture accounts for only a small proportion of the economic output of the emirate – less than 1% of GDP in 2011, according to the Statistics Centre-Abu Dhabi (SCAD). Nevertheless, agriculture has a longer local history than one might initially expect – archaeological evidence suggests the oasis of Al Ain in the south-east of the emirate has been cultivated since the third millennium BCE – and the Abu Dhabi government is once again paying attention to the sector.

**VOLATILE MARKETS:** The end of the past decade saw a spike in commodity prices, which resulted in a period of high food price inflation globally. The Gulf states import the vast majority of their food, and as such are sensitive to international food price fluctuations to a greater degree than many other countries. One response to this price upsurge, which a number of Gulf countries have taken, has been to purchase or lease agricultural land abroad in countries that are more suitable to cultivation.

There is recognition on the part of the authorities that it is unreasonable to aim for complete self-sufficiency in food production. The government plans to develop a strategic agricultural base and to work together with local private companies that have agriculture investments abroad in order to lessen exposure to volatility on world markets. A further, though secondary, consideration is the importance of agriculture in transmitting heritage in a country that has experienced very rapid social and economic change over the space of a generation.

Traditionally, agriculture in the region distinguished between a *mazra'a*, a farm that involves cultivation of the land, and an *izba*, which is solely for livestock. Precise numbers of izba farms were not available at the time of writing, but currently, the emirate of Abu Dhabi has around 24,000 mazra'a farms, most of which are very small – around 2 ha on average, according to the Abu Dhabi Farmers Service Centre (FSC). Of these, some 12,000 were in Al Ain Municipality, around 4000 in the Abu Dhabi Municipality and the rest in Al Gharbia Municipality. Many of these are run on a hobby or semi-commercial basis, with the owners often doing some of the work themselves, although in the UAE, as elsewhere in the region, immigrant labour plays an important part in keeping farms going. In the UAE, land ownership is restricted to nationals or GCC citizens, with the majority of farms owner-occupied. There are currently relatively few large-scale integrated agribusinesses such as are found in neighbouring Saudi Arabia, although their number has been increasing over recent years. Indeed, part of the Abu Dhabi government's long-term strategy for the sector is to develop more commercially oriented agriculture in the emirate.

**ENSURING HIGH STANDARDS:** Customs and phyto-sanitary regulations are drawn up at the federal level in the UAE, and the federal Ministry of Environment and Water is responsible for the supply of water to farms across the country. However, agriculture is largely dealt with at the emirate level. In Abu Dhabi the main regulatory authority is the Abu Dhabi Food Control Authority (ADFCA). Previously, agriculture was the responsibility of the municipalities, but the government transferred agriculture affairs to ADFCA in 2007. ADFCA is responsible for food safety "from farm to fork" – including such areas as inspecting food health standards, testing agricultural chemicals and coordinating agricultural policy within the emirate. The FSC, founded in 2009 under the auspices of ADFCA, operates an educational and extension scheme to local farmers, with 39 extension centres scattered across the emirate and one model farm.

**SUPPORTING FARMERS:** The UAE does not impose protective tariffs on food imports, which account for around 90% of the country's food consumption, according to FSC estimates, but in Abu Dhabi the government does provide support to farmers in various ways. In addition to the technical expertise available

through the FSC, ADFCA offers up to Dh90,000 ($24,507) of financial assistance to farmers, subject to certain restrictions on what crops can be grown. Additionally, the government guarantees to buy dates using a price structure more favourable to smaller farmers. On the consumer side, the federal Ministry of Economy imposes price controls on certain basic products such as rice and sugar, while Abu Dhabi supplies consumers with flour from Agthia mills at subsidised rates.

Agthia, a company listed on the Abu Dhabi bourse, is 51% owned by Abu Dhabi's General Holding Corporation (SENAAT). Agthia maintains a number of food processing and agribusiness divisions. The latter, which account for around two-thirds of its business, include various animal feeds and hay pellets for use as fodder. The consumer division produces foodstuffs such as flour, juice, tomato paste, bottled water and yoghurt, often in collaboration with multinational firms.

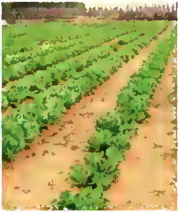
These include the international yoghurt franchise Yoplait, as well as Germany's Capri-Sun and the US's Chiquita juice brands. In addition to these activities, the firm produces tomato paste and frozen vegetables in Egypt, and in December 2011 acquired a spring water company in Turkey to produce bottled water. Agthia has also partnered with the government to sell certain basic products at a discounted rate to nationals living in small towns in Abu Dhabi emirate who cannot reach a hypermarket easily.

**OUTPUT:** Although precise figures on harvest yields and their value are hard to come by, according to figures from SCAD, a total of 3.1m tonnes of local agricultural products were supplied to agricultural marketing centres in 2011, with a total value of Dh6.49bn ($1.77bn). This compares with respective figures of 1.05m tonnes and Dh1.72bn ($469.2m) in 2010 and 1.25m tonnes and Dh2.06bn ($560.1m) in 2009. Of these, the leading sector was hay/fodder, which dominated both in terms of volume and of value, with SCAD recording delivery 3.06m tonnes worth Dh6.4bn ($1.74bn) in 2011. The next most important crops were various vegetables, such as tomatoes, worth Dh46.3m ($12.6m) in 2011, onions, worth Dh7.4m ($2.02m), and beans, worth Dh1.8m ($489,346). During the same year, cabbage delivered was worth Dh1.6m ($435,313).

In terms of livestock, in 2011 Abu Dhabi counted a total of 2,398,000 animals, including 2,080,000 head of sheep, 40,000 cattle and 277,500 camels. These numbers are up from a total of 2,357,000 livestock animals in 2010, of which 2,042,000 were sheep, 39,800 cattle and 275,400 camels.

By value, the agricultural sector contributed Dh4.84bn ($1.32bn) to the emirate's GDP in 2011, compared to Dh4.8bn ($1.31bn) in 2010 and Dh4.7bn ($1.28bn) in 2009, according to SCAD.

**WATER CONSUMPTION:** According to estimates from the FSC, agriculture currently accounts for about 68% of total water consumption in the emirate, consuming 1.74bn cu metres a year, or 56% of all groundwater extracted. Agricultural water consumption is dominated by two perennial crops: dates



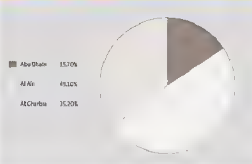
Important crops include cabbage, tomatoes and hay

and Rhodes grass (a type of fodder). The latter consumes 600m cu metres a year, or 60% of all agricultural water consumption in the emirate. By contrast, the emirate's livestock population consumes around 20m cu metres a year. ADFCA has set targets of reducing the agricultural sector's water consumption by 40% by 2013 and of reaching 40% market share in fruits and vegetables for local produce. In order to meet this target, the agency is pushing to shift to less water-thirsty crops and crop varieties and more efficient irrigation systems. At the same time, to expand local market share, the agency is putting a renewed focus on quality and marketing.

**HORTICULTURE:** There is no grain or cereal production in the UAE on any large scale, but also one of the areas receiving the most attention is fruit and vegetable production. Not only does such produce have a relatively high added value, making it viable for local farmers to grow, but also in many cases their water requirements are rather modest, which is a consideration if Abu Dhabi is to achieve its target cut in water usage. Moreover, the public generally buys

By 2013, the Abu Dhabi Food Control Authority has the twin goals of achieving a 40% market share in fruits and vegetables for local produce and reducing the agricultural sector's water consumption by 40%

Breakdown of farms by region, 2011




SOURCE: Statistics Centre – Abu Dhabi

Although the UAE ranks fourth worldwide for date production, it is the largest single exporter of the dried fruit, according to a 2009 Ministry of Foreign Trade report.

fruit and vegetables based on freshness as much as on price, and here local farmers have a marked advantage over imported produce, which may have spent weeks in storage and transit. Currently, around 35 varieties of local vegetables and herbs are available, many marketed through the FSC. While the UAE suffers from fairly poor, sandy soils, one vegetable that responds well to the conditions is cabbage while local tomatoes, cucumbers and peppers, often grown in climate-controlled greenhouses, have proved popular in the domestic market. With the exception of dates, fruit generally has to be grown under glass.

Potatoes are another crop that is growing in importance relatively quickly. Although potatoes do not keep as long as cereals – especially when travelling over long distances – it takes half the amount of water to produce the same calorific energy from potatoes as from grain, making them an eminently suitable carbohydrate crop to produce in a desert country. Abu Dhabi consumed 110,000 tonnes of potatoes in 2011, according to the FSC, but Saudi Arabia, which had been the UAE's major supplier, banned exports of open-field vegetable crops (including potatoes) in September 2012, adding to the urgency of developing domestic production capacity. In 2010 the FSC imported seed potatoes from the Netherlands and in 2011 from France, and successfully produced a domestic crop of seed potatoes in the 2011/12 harvest, laying the foundation for an independent local potato industry.

**DATES & FODDER:** However, the pre-eminent crop in Abu Dhabi remains the date, at least in terms of government support and cultural resonance. In global terms, the UAE is the fourth-largest producer, but the largest single exporter, with around 90% of production going abroad, according to a 2009 report by the federal Ministry of Foreign Trade. In 2005 the government founded Al Foah Dates Company, a subsidiary of SENAAT, replacing several smaller entities. Al Foah buys the emirate's entire date crop and in this way distributes the government subsidy for date-growers. As recently as 2005, half of the dates went to animal fodder (one of the traditional uses for the crop in the UAE), but the advent of modern farming techniques and materials has freed up much of this to be directed to more profitable uses. Al Foah is attempting to shift from dates being a basic crop to products with higher added value (see analysis).

In 2011 just over 3m tonne of fodder, worth Dh3.06bn ($832.9m), was delivered to the agricultural marketing centres, according to SCAD figures. However, the majority of the emirate's fodder is imported, though some is refined in Abu Dhabi, such as the hay pellets produced by Agthia. In previous years, the fodder crop has been dominated by Rhodes grass, which tolerates salinity, but which is extremely water-thirsty. ADFCA is now moving to end its production, and public subsidies are currently not available to farmers who grow Rhodes grass on their land,

**LIVESTOCK:** The number of livestock has decreased in recent years, from 2.7m head in 2009 to 2.4m head in 2011. Beef has never featured prominently in the local diet, as national cuisine favours mutton and chicken, and cattle have traditionally been more important for milk than for meat. There is a trend in the industry both towards greater local production of livestock (particularly eggs and poultry) and, simultaneously, a move towards larger, more industrial-type farming. The Al Gharbia region is already self-sufficient in sheep for the major Muslim festival of Eid Al Adha. As late as 2010, 70% of eggs and 50% of meat were imported. According to SCAD, in 2011 the emirate was home to eight broiler poultry farms producing 17,350 tonnes of chicken meat, and four egg poultry farms producing 151m eggs. This compares with nine broiler farms producing 12,000 tonnes and four poultry farms producing 130m eggs in 2008. Figures for local milk production were not available. One niche product is camel's milk, which Al Ain Dairy produces under the Camelait brand. Camel's milk is more nutritious and has a higher vitamin content than cow's milk, and the product has therefore found a market by appealing to the health conscious, as well as those with a taste for the traditional. "There is potential to develop more value-added food processing locally in areas such as baked goods," Ilias Assimakopoulos, CEO of Agthia told OBG. "Additionally, UAE-based companies have significant potential to export processed foods to serve the markets in the region."

**FOOD PROCESSING:** Abu Dhabi is also home to a number of other food processing groups, including National Food Processing Company and Al Ain Dairy. The food processing industry in the emirate remains relatively small, although there have been notable successes such as Al Ain mineral water, part of the Agthia group. Presently the main sector competition comes from Saudi Arabia, which is home to several market-dominating agro-food groups, and which, as the largest single market in the GCC, can benefit from economies of scale not available to smaller countries.

Another challenge is that the UAE's population is one of the most demographically diverse in the world, and the different nationalities in the country each have their own tastes. The UAE has both a large high-value segment (mostly geared to nationals and well-paid Western expatriates) and a value-oriented one (of lower-paid expatriates from Asia), and successfully catering to the tastes and price range of both is a challenge. However, the new industrial zone Kizad, being developed in tandem with the new Khalifa Port complex and due to open by 2013, is expected to provide the industry with a fillip since it will make importing raw material easier and cheaper.

**Abu Dhabi livestock numbers, 2009 & 2011 ('000)**

| | Sheep | Cattle | Camels | Total |
|---|---|---|---|---|
| 2009 | 2306 | 43 | 378 | 2727 |
| 2011 | 2080 | 40 | 278 | 2398 |

SOURCE: SCAD

The food processing industry has made some recent strides, although the sector is still relatively small

**NICHES:** One area where there is a lot of yet untapped potential is organic food. With a focus on fresh and local produce, organic agriculture has proven a successful method for farmers to obtain a better price for their output. While organic farming remains in its infancy the UAE, particularly in regards to certification and so on, there is a large potential market of wealthy consumers who might be interested in organic fruits and vegetables.

The population is demographically diverse and divided between a high-value segment and a low-value segment, which generally have different origins, tastes and income levels.

Fishing is not a major contributor to Abu Dhabi's economy, with the total value of the catch in local ports amounting to just Dh69.4m ($18.9m), some 3922 tonnes in 2011, according to the Environment Agency – Abu Dhabi, compared to 6333 tonnes worth Dh124.4m ($33.9m) in 2010. The largest catches were of scombridae (a family that includes tuna and bonito fish) and hamour, a local white fish used extensively in Emirati cuisine. One niche in the local fishing industry is the Royal Caviar Company, a subsidiary of Abu Dhabi's Bin Salem Holding Company in partnership with German firm United Food Technologies. By the end of 2012, it plans to produce the first commercial quantities of Emirati caviar from a dedicated fish farm in Abu Dhabi. By 2015 the company hopes to produce up to 35 tonnes per year of Ossetra and 700 tonnes per year of sturgeon meat. Total investment in the project is Dh420m ($114.4m).

**CHALLENGES:** Given the desert environment, one of the most important challenges for Abu Dhabi's farmers is water. Although residential and industrial users are supplied with desalinated water, it is rare for this to be supplied to agricultural users, who account for two-thirds of the total water demand in the UAE. While this is nothing new in itself – Emirati farmers have been reliant on aquifers for centuries – there is a danger that groundwater resources may be damaged irreparably if extraction continues to outpace replenishment rates, as has been the case for some years. In 2011 SCAD figures showed that groundwater continued to account for the bulk of agricultural

Agricultural users account for two-thirds of the total water demand in the UAE. If extraction continues to outpace the rate of replenishment, groundwater sources may be at risk of being exhausted.

Desalination plants help boost the supply of water available

Experimenting with crop varieties that need less water is one of the ways the government is attempting to meet its target to reduce water consumption.

water usage, 2.22bn cu metres out of a total water consumption of 2.38bn cu metres. Desalinated water contributed 30.7m cu metres and treated wastewater 126.3m cu metres. On the plus side, total water consumption in the sector has been falling steadily, from 2.81bn cu metres in 2007 to 2.56bn cu metres in 2009 and 2.41bn cu metres in 2010. To help farmers meet its water reduction target, the FSC has been experimenting with crop varieties that consume less water, and there is ample room to expand treated sewage water for irrigation in the emirate's gardens and some farms. Water savings will continue to increase, especially as the emirate expands its programme to outsource agriculture production abroad.

Hydroponics is another potential way of making precious water go further. This technology involves growing crops in a liquid solution of nutrients in a greenhouse, which is then recycled, cutting water requirements considerably, as well as reducing the need for pesticides. Already, one company, Emirates Hydroponics Farms, produces lettuces, fresh herbs and tomatoes for the local market. However, the equipment required is relatively expensive and requires technical expertise, meaning that a large-scale switch to hydroponic horticulture is unlikely over the short to medium term. There will continue to be a trade off between food and water security, with governments across the Gulf recognising the need not to compromise the latter. Saudi Arabia has already curbed certain food exports as a means to preserve water resources, while the UAE banned the export of groundwater in bulk in September 2011 and a total ban is expected to follow.

A further challenge facing the sector is a certain resistance to change on the part of farmers when it comes to adopting new varieties and agricultural techniques. This problem is common in many countries, and in the UAE, as elsewhere, when farmers see good results they are generally happy to change.

The agricultural sector continues to suffer from a lack of detailed analytical data, but the establishment of the FSC has gone a significant way in addressing this obstacle. Additionally, the local food processing industry claims that margins can suffer from federal price controls, but that officials are generally sympathetic to their problems and concerns, albeit sometimes slow in effecting changes.

**OUTLOOK:** The agricultural sector in Abu Dhabi continues to be dominated by relatively small farmers and this is predicted to continue over the short to medium term. Nevertheless, a more commercial approach is evident, with local agribusinesses looking to scale up production and increasing interest among smaller farmers toward niche products. In particular, vegetables, livestock and food processing look set to see strong growth as sourcing supplies from abroad becomes more difficult. Concerns over water are likely to remain but the industry has already succeeded in reducing its water consumption significantly, giving ground for hopes that more reductions do not have to bring on sacrifices in value or quality.

Dates are nutritious and grown in abundance locally

# Bearing fruit

## Promoting date brands with more added value

The date has long featured heavily in Emirati agriculture, due to both the country's climate and the plant's intrinsic properties. Date palms are the only fruit-bearing plant that can be cultivated out of doors (as opposed to in greenhouses) in the harsh desert climate, and moreover, the tree's strong roots help to bind sandy soils together, meaning other plants such as vegetables can be planted in between.

**A KEY CROP:** Dates are highly nutritious, containing high levels of vitamin A, iron, potassium and fibre, and the plant is suitable for both human and animal consumption. Perhaps most importantly, the calorific yield per unit of water is higher than many other crops. In terms of absolute calorific yield, dates contain 3000 calories per kg, compared to 970 for bananas and 480 for oranges.

Although the value of the agricultural sector in the UAE is not large – less than 1% of GDP in 2011 according to the Statistics Centre – Abu Dhabi – dates remain one of the most important crops for the country. The date harvest has been rising for some decades, according to figures from the Date Palm Research and Development Programme (DPRDP) at UAE University, production was only 8000 tonnes in 1971 but had jumped to 500,000 tonnes by 2000.

The Abu Dhabi Food Control Authority distributes subsidies to farms

The UAE counts over 40m date palms in the country as a whole, with some 120 varieties cultivated.

A 2009 study by the federal Ministry of Foreign Trade found that the UAE came fourth in terms of world production after Egypt, Iran and Saudi Arabia, with an output of 755,000 tonnes in 2008. However, in that year the UAE led the world in terms of exports, accounting for about a third of the global total, or some 280,000 tonnes in 2008. However, domestic consumption also constitutes a significant market, with figures from the DPRDP showing that in traditional date-producing countries per capita consumption stands at 150-185 kg per year.

In 2008 the UAE produced 755 000 tonnes of dates and exported 280 000 tonnes – making it the fourth largest producer and single largest exporter that year

The government of Abu Dhabi is keen to support date farmers, as a means to preserve the country's heritage and environment. However, most local farms are small and run on a semi-commercial basis. Thus, in a bid to introduce greater rationalisation, Al Foah, a subsidiary of Abu Dhabi's General Holding Corporation, was set up in 2005 to make the emirate's date industry financially viable and competitive. To this end, the company helps to improve the date subsidy policy and farm management, packages the crop, and markets it at home and abroad.

Not only has the date harvest risen in response to these measures, with Al Foah processing 90,000 tonnes in 2011 compared to 20,000 tonnes in 2005, but also the quality has improved, with Al Foah applying strict quality and food safety standards drawn up in partnership with the Abu Dhabi Food Control Authority. Farmers who fail to meet these standards are disqualified from the subsidy, which takes the form of guaranteed prices paid on a sliding scale, favouring the smaller producer over the larger.

**NEW BRANDS:** Now however, the authorities are keen to move dates from being a mere agricultural commodity to adding value and marketing more high-end products. A good parallel might be chocolate, which can be bought as a basic product but which is also regarded as something of a luxury at

Measures to combat the red palm weevil have proved successful

North Africa, particularly Tunisia, and Jordan are the major sources of competition for the UAE in terms of date production and export.

the top end of the market. To achieve this, Al Foah has gradually diversified the number of brands under its stable. In addition to Saad, a bulk brand aimed at wholesale and value segments, the company has several other brands aimed at upmarket segments. These include Date Crown and Al Dhafra, with the former aimed at markets in developing countries and Oceania, and Al Dhafra geared to the GCC. Both brands also feature products such as dates stuffed with nuts and date syrup (a honey substitute). The newest is Zadina, founded in 2010 to cater to the gourmet end of the market, offering products such as date truffles, date fudge and date ice cream.

**EXPANSION:** The main centres of competition for UAE dates are North Africa and Jordan, both of which cater primarily to European markets. However, the varieties grown in these countries, Daglet Nour and Medjool, respectively, are very different from the varieties produced in the UAE, which is also better located for access to the Asian market. Although dates remain relatively unknown in parts of East Asia, UAE dates won an award for best-selling product at the 2012 SIAL Food Expo in China in May 2012.

Another potential vehicle for expansion is the organic market. Al Foah says it runs the biggest organic date farm in the world, at 1321 ha. According to local press, a number of organic food markets have opened across the UAE over the past year, especially in Abu Dhabi and Dubai. While the market for organic food is still comparatively underdeveloped in the UAE, the country's fairly large base of high-income, health-conscious consumers means that there is ample potential for growth.

Moreover, during Ramadan, the Islamic month of fasting, it is traditional to break one's fast with dates. With over 1bn Muslims in the world, this creates a big potential market for the UAE's dates. According to a 2008 US Agency for International Development study, the leading market by value for dates was the EU, which in 2006-07 spent $201m on date imports, followed by India, which spent $75m. A number of East Asian Muslim-majority countries were also significant date importers, such as Malaysia ($21m), Indonesia ($8m) and Bangladesh ($6m). The UAE itself was the third-largest importer, spending $34m.

**RESEARCH:** The DPRDP was founded in 1989 with a view to increasing agricultural productivity specific to date cultivation. Its remit involves increasing the technical and scientific base that is available in-country, and it features a tissue culture laboratory, a genetic base of high-quality date varieties, trained micropropagation personnel and a dedicated tree nursery. The red palm weevil, a parasite which first arrived in the Arabian Peninsula from Asia in the 1980s, threatened to devastate the country's date plantation in the late 2000s. The creature burrows inside the trunk and eats the tree away from within, eventually killing the vital palm heart.

While the only solution used to be to burn the infected trees, a Ministry of Water and Environment programme to trap the weevils using a pheromone mixture to dupe the insects managed to contain the number of trees affected to just 5% of the total.

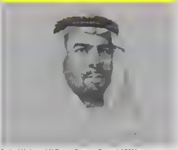
**DATE TOURISM:** In addition to the value produced by the date crop, however, date farming is also of growing importance to the tourist industry in Abu Dhabi. Perhaps the single biggest date-related event is the Liwa Dates Festival, which has been taking place in the oasis town of the same name in the Al Gharbia region since 2005. The festival, which is held in the summer, aims to showcase this aspect of the emirate's heritage and traditions to tourists, expatriates and Emiratis, as well as providing an opportunity for farmers to showcase their crop.

The 2011 festival involved prizes for the best crop in seven varieties, poetry recitals and demonstrations of handicrafts and traditional Emirati recipes, often date-based. The 2008 festival featured the world's biggest date dish, measuring 12 metres by 2.5 metres, which remains unsurpassed to date. The value of the prizes distributed in the 2011 festival came to $1.36m, and the event featured over 150 stalls and attracted 70,000 visitors. Although the festival's economic impact is hard to quantify, there can be little doubt as to its importance to Liwa, as the city lies in a region that is otherwise little-visited by tourists.

Quantity & value of dates produced by region, 2008-11

| | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Quantity (tonnes) | | | | |
| Abu Dhabi region | 2575 | 2532 | 5175 | 5705 |
| Al Ain region | 39,358 | 35,329 | 45,660 | 46,955 |
| Al Gharbia region | 23,625 | 24,633 | 22,055 | 24,320 |
| Total emirate | 55,557 | 62,594 | 72,900 | 76,980 |
| Value (Dh m) | | | | |
| Abu Dhabi region | 11.75 | 13.72 | 33.11 | 41.32 |
| Al Ain region | 235.27 | 233.51 | 265.6 | 298.51 |
| Al Gharbia region | 11.75 | 13.72 | 33.11 | 41.32 |
| Total emirate | 385.32 | 428.53 | 439.87 | 516.37 |

SOURCE: Al Foah Company



Rashed Mohamed Al Shariqi, Director-General, ADFCA

# The changing culture of agriculture

## OBG talks to Rashed Mohamed Al Shariqi, Director-General, Abu Dhabi Food Control Authority (ADFCA)

**In what ways can technology play a role within the local agriculture sector, particularly with regards to water conservation and management?**

**AL SHARIQI:** Technology can and must play a major role in any conservation initiative. Though expensive in the short term, technology helps to achieve sustainability in the long term. The latest technology platforms in agriculture, such as hydroponics, aeroponics and greenhouses, are currently used in Abu Dhabi. We have replaced people with machines as much as possible, in seeding, harvesting, as well as in other activities.

One of the most important initiatives has been the introduction of irrigation technology, a big step towards sustainability and ecological and environmental protection. Some 95% of the water used in farm irrigation in the emirate comes from ground water and only 1.3% of extracted ground water is renewable due to our low average rainfall. Additionally, 20% of all desalinated water is used for irrigation. We have also banned the cultivation of Rhodes grass, a popular livestock feed that was consuming around 59% of all irrigated water.

We are relying heavily on new technologies to deal with the water crisis, for both increasing water availability and ensuring its efficient use. However, creating awareness among farmers and farm owners about how the right use of technology can contribute to increased productivity, higher incomes and less time spent on cultivation is also very important.

**To what extent can proper training improve food preparation practices and safety within Abu Dhabi?**

**AL SHARIQI:** Training plays a major role in improving the behaviour of food handlers. Our training schemes are designed to help those working with food to internalise best practices in a methodical manner. In fact, almost 90% of food handlers in the emirate have already undergone mandatory Essential Food Safety Training. We are offering this training through approved third parties in around eight languages, in addition to pictorial training for those with limited language skills.

**What challenges does the emirate face as a result of importing the vast majority of its food?**

**AL SHARIQI:** Since the largest chunk of our food is imported, it is a constant challenge to ensure food safety. Food products reach our borders from all over the world and it is important to keep pace with the imports on a regular basis. Another major challenge is the possibility that food-monitoring authorities in the exporting countries may be lax in making sure that only safe products are allowed to be exported.

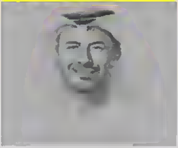
It is important to remain vigilant about diseases and contaminants that may reach us, even before their incidence is reported in the source countries or alerts are issued by international authorities. Thus far we have proved equal to the task, without any major hazard or mishaps being reported to date.

**How is the manufacturing of more value added agriculture products being encouraged?**

**AL SHARIQI:** A number of initiatives have been launched through the Farmers Services Centre (FSC) with the aim of helping farmers streamline production and post-production so that the waste of produce is minimised.

Currently, one of the main drawbacks is the imbalance between sufficient production and the lack of corresponding facilities for the post-production phase. The FSC has worked, in association with ADFCA's agriculture sector, to increase the average rate of production of farms and to increase their competitive edge. This will involve a more efficient use of farming areas as well as an improvement in the quality of crops. Between 2010 and 2011, for example, high-quality potatoes were cultivated in the Western Region of Abu Dhabi using intensive methods.

There are a number of similar efforts being made for the cultivation of a variety of products. A new culture of farming is now being promoted with the aim of increasing productivity, ensuring higher incomes for the farmers, streamlining marketing channels and taking farming to newer and higher levels of sophistication.



Khadim Abdulla Al Darei, Managing Director, Al Dahra

# From field to fork

## OBG talks to Khadim Abdulla Al Darei, Managing Director, Al Dahra

**What can be done to increase food security for the UAE? To what extent will investing in agriculture abroad help fulfil this objective?**

**AL DAREI:** The biggest challenge facing the UAE and its future generations is the scarcity of water. We are living in a desert area and most of our water comes through desalination. Previously, the government was fully subsidising the production of crops and animal feed. However, this process turned out to be highly inefficient when it came to cost.

The government has come up with a new initiative to make the agriculture sector both profitable and sustainable. The Abu Dhabi Food Control Authority was formed to create a sustainable structure for privatising the agriculture sector. The opportunity costs of subsidising the agriculture industry are very high particularly because of the water scarcity issue.

Therefore, it has been decided that, when possible, outsourcing agriculture is the most cost efficient way of creating a sustainable agriculture industry.

**To what extent is Abu Dhabi building its strategic food reserves? How will this act as a buffer to prevent food price inflation?**

**AL DAREI:** The best strategy is to have 30-50% of required food in reserve. Whether it is produced domestically or abroad, it is essential to have food readily available at all times. For example, recently the price of rice rose considerably in Pakistan. If there had been no safety stock of rice in the emirates it would have been devastating but because of our food security programme we are safe and have not been disturbed by the market in Pakistan.

It is not just a matter of having the reserves available. It is also a matter of planning ahead and saving money for whenever inflation drives up food prices. It is also important to note that food commodity prices are based on speculation, not on supply and demand. Therefore, the political climate will often lead to price fluctuations, meaning that long-term planning for sustainable farming and pricing is a necessary tool for ensuring continued food security.

**What strategy have officials been adopting to help ensure a cost-efficient and sustainable agricultural outsourcing programme?**

**AL DAREI:** There are numerous aspects to creating an effective system of agricultural sustainability and it starts with the process of diversification. Al Dahra has invested in farmlands in both the northern and southern hemispheres. This is to make sure we can cultivate crops all year round and avoid any shortages that are caused by year-to-year climatic changes. Seasonal diversity is a key component to our plan.

Another aspect that is taken into consideration is the ever-changing global climate. Water supply and the sun are very important factors. We have analysed each country that we have outsourced to, which will allow us to match our choices in import crops with the countries that we are developing them in. Ultimately, the success of agricultural outsourcing lies in the proper and diverse exposure to host countries. We have classified the countries based on their development and infrastructure, as well as their stability.

**What steps are being taken to ensure that the agriculture investments being made abroad will benefit the host country first?**

**AL DAREI:** The plots that have been purchased on foreign land actually create a mutually beneficial situation for both entities involved. Over 50% of the production is sold to the host country at market value. Abu Dhabi's presence also presents the locals with job opportunities. The UAE benefits by diversifying its agricultural production. It gains from not only securing future food supplies but also from boosted export activity. Sometimes dual investment protection treaties and dual commodity treaties must be negotiated to create a free bilateral trade relationship in the event that a host country puts a ban on a specific export.

Demand for fish will likely grow at a rate of 8% a year up to 2030

# A sea of potential

## Aquaculture is on the rise and can help enhance food security

Fishing in Abu Dhabi is set for a period of transition. Once one of the emirate's major industries before the discovery of oil, like many other traditional activities it has faced a long decline over the past four decades. However, the next few years hold promise of a turn-around for the industry, which should see a period of major reorganisation. While demand for fish continues to rise, the sector is slowly moving away from a traditional structure, with fish farming (also known as aquaculture) assuming a greater importance.

In Abu Dhabi, where roughly two-thirds of the UAE's territorial waters lie, the fisheries sector is regulated by Law 23 of 1999, which specifies the Environmental Research and Wildlife Development Agency (subsequently renamed the Environment Agency-Abu Dhabi, EAD) as the industry regulator. The fisheries law emphasises the role of conservation and stock management.

**CHANGES OVER TIME:** According to figures from the federal Ministry of Environment and Water, the total number of fishing boats in the UAE rose from 1065 in 1976 to 5692 in 2009, with some 6300 Emiratis engaged in the fishing industry in the latter year.

The number of Emiratis employed in fishing has been falling for some time. The population of the UAE is increasingly urbanised, and with better education and career opportunities, many of the younger generation are choosing not to enter the sector.

The general pay structure, which is dependent on the catch and therefore highly variable, is another disincentive for nationals to enter the business, and remuneration remains lower than many other industries. As such, many fishermen are now expatriates, often from South Asia, although by law the *nowkhadha* – or skipper – must be a UAE national, and must be present on board whenever the boat puts out to sea. Moreover, given the prominent role it plays in the nation's heritage and identity, fishing enjoys a status that goes beyond its commercial importance.

Across the Gulf region, a combination of environmental degradation and overfishing has caused fish stocks to fall to just 20% of 1970s levels, according to figures from the EAD. In the case of hamour (a white fish used extensively in the traditional cuisine of the Gulf), stocks now stand at just 10% of 1970s levels.

The population of the region has soared, with the UAE alone rising from around 200,000 inhabitants at independence in 1971 to over 8m, according to estimates from the National Bureau of Statistics. Demand for fish has risen in tandem. According to government figures, total fish consumption in the UAE stood at around 209,000 tonnes in 2011, up from 194,000 tonnes in 2010. The UAE's total catch was 80,000 tonnes in 2011, up slightly on 79,610 tonnes in 2010, but still well below the 100,400 tonnes of 2006.

The difference between demand and supply is met by imports, which totalled 152,000 tonnes in 2011. Nevertheless, the UAE also exports a significant proportion of its catch, some 23,000 tonnes in 2011, compared to 18,000 tonnes in 2010.

For Abu Dhabi in particular, the emirate caught 3922 tonnes of fish worth Dh69.4m ($18.9m) in 2011, compared with 6556 tonnes worth Dh127m ($34.6m) in 2010, according to the Statistics Centre – Abu Dhabi (SCAD). In March 2012 local press put the total value of Gulf fisheries at over Dh1bn ($272m), with UAE consumption estimated at between 70 to 100 tonnes a year, averaging some 33 kg per capita.

**MEETING DEMAND:** Population growth and rising affluence mean demand for fish is projected to grow at around 8% a year up to 2030, reaching 900,000 tonnes by that year for the UAE, according to estimates based on historic market trends. However, the recent rise in food prices has prompted Abu Dhabi to look to enhance its food security by producing more of its food at home, particularly perishable commodities like vegetables and livestock. The emirate's desert environment means that there is necessarily a trade-off between food security and water security. As such, developing aquaculture is particularly attractive, since unlike other types of agriculture, fish farming imposes

The emirate, like much of the GCC region, is suffering the consequences of overfishing, with today's fish levels standing at just 20% of those seen in the 1970s.

**Quantity & value of fish caught by type, 2010-11**

| | 2010 | | 2011 | |
|---|---|---|---|---|
| Fish family | Quantity (tonnes) | Value (Dh m) | Quantity (tonnes) | Value (Dh m) |
| Carangidae | 1059 | 14.5 | 557 | 8.1 |
| Haemulidae | 684 | 4 | 375 | 2.6 |
| Lethrinidae | 948 | 13.9 | 535 | 12.8 |
| Lutjanidae | 133 | 3.9 | 36 | 0.2 |
| Portunidae | 75 | 1.3 | 85 | 1.6 |
| Scombridae | 1614 | 45.7 | 740 | 13.1 |
| Serranidae | 1064 | 35.8 | 825 | 26.4 |
| Sparidae | 121 | 1.6 | 80 | 0.5 |
| Others | 853 | 8.3 | 341 | 3.5 |

SOURCE: Environment Agency – Abu Dhabi

*Government support for developing the local fish farming industry is key as banks are generally hesitant to lend, particularly at the early hatchery stages*

no strain on precious freshwater resources. By using only seawater at onshore facilities and recycling this water, the impact on the environment can be minimised. Over the longer term, a move to meeting most consumption through farmed fish will also relieve pressure on wild stocks, allowing them to recover. In November 2012, the EAD held discussions with Abu Dhabi Food Control Authority (ADFCA), the emirate's food safety and security regulator and other stakeholders to map out strategies to develop fish farming, including drawing up a list of several species that are suited to both aquaculture and the UAE's marine conditions.

**FISH FARMS:** One of the main players is International Fish Farming Holding, branded as Asmak, a public company founded in 1999. The firm's activities span the aquaculture gamut, including hatcheries, fish farms, processing, fish feed and equipment, marketing and distribution. Asmak operates in the UAE and has subsidiaries in Oman, Saudi Arabia and Bahrain. The company is working with ADFCA to develop a fish development plan, with an initial target of increasing local farmed fish production by 800 tonnes a year.

The Abu Dhabi Fisherman's Cooperative Society is also planning to develop its own fish farming facilities, with a view to producing medium-sized fish and prawns retailing for around Dh10-15 ($2.7-3.7) per kg, and which are a staple food among low- to middle-income families. Slightly more specialised is Royal Caviar Company which plans to produce the first commercial quantities of Emirati caviar by the end of 2012, and to produce 35 tonnes a year of Ossietra caviar and 700 tonnes a year of sturgeon flesh by 2015.

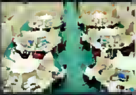
**FINANCING GROWTH:** One of the main obstacles in developing a local fish farming industry has been finance, with local banks and insurance firms reluctant to invest, particularly at the hatchery stage where production can be uncertain. "The government must continue to support the industry, particularly at the research and development and hatchery level, so that the fish-farming industry can mature," said Mamoon Othman, the group CEO of Asmak. "Only then will there be opportunities for the private sector to play a role in commercialising the sector and making it more sustainable."

Once a network of hatcheries has been established, experience shows that the private sector is willing to invest, particularly on the marketing and distribution sides. Moreover, with fish consumption in the GCC averaging 50 kg per head a year according to Asmak, there is ample potential for Abu Dhabi to sell to its neighbours, creating a commercially driven export sector.

At the same time, the government is keen to tackle the problem of declining stocks, especially to prevent the disappearance of the iconic hamour. Part of the problem is that hamour take up to three years to reach reproductive capacity, and the species is particularly vulnerable to overfishing as stocks are less able to reproduce quickly. Although trawling has been banned in the UAE since the 1970s, the shift from creels made of palm frond to ones of metal wire makes it harder for young fish to escape, including the commercially insignificant but ecologically important smaller species that help maintain the food chain and health of the marine environment. Over the longer term, an agreement between all Gulf littoral states to combat the consequences of overfishing could help hamour stocks to recover, but to date no firm agreement has been reached.

# IT & Telecoms

Growing appeal for firms looking for a regional base
E-government programme remains a high priority
Satellite launches boost communications infrastructure
Network sharing likely to promote greater competition



The UAE ranked 30th in the WEF's 2012 Network Readiness Index

# Tech nation

## Taking further steps toward becoming a regional IT centre

Telecoms companies in the UAE are continuing to invest in the country's physical infrastructure, which is among the most advanced in the world.

In tandem with the increasing diversification of the economy of Abu Dhabi, the information and communications technology (ICT) industry has come to take on a much more prominent role. Abu Dhabi is already home to a much broader range of businesses than was the case even five years ago, which is leading to a broader range of opportunities in ICT. This is resulting in private expenditure accounting for a growing proportion of total ICT spending. At the same time, the trend towards outsourcing in both the private sector and among government entities is gathering pace. Telecoms firms in the UAE continue to invest in the country's physical infrastructure, which ranks among the world's most advanced, while the public continues to show a growing appetite for data services, which are driving the telecoms market as margins on voice services tumble.

**RANKINGS & NUMBERS:** According to a 2008 study by the World Economic Forum (WEF), the UAE was ranked first in the Middle East and 29th in the world in terms of ICT development, while the WEF's 2012 Network Readiness Index placed the UAE in 30th place globally. In the Middle East, only Bahrain and Qatar ranked higher in 2012. This, in turn, is testament to the quality of the UAE's telecoms infrastructure, and the degree to which this contributes to its competitiveness. The country has one of the highest mobile penetration rates in the world – 199% in 2011 according to the Telecoms Regulatory Authority (TRA), the federal entity charged with oversight of the sector. The TRA's remit specifically charges it with maintaining an environment into which the UAE's ICT industry can emerge as a global leader.

**INDUSTRY BODIES:** The Abu Dhabi Systems and Information Centre (ADSIC) is an independent government department which acts as a platform from which other government departments can provide their services electronically to the public. In addition, it is responsible for drawing up guidelines for the implementation of e-government policies.

The ICT Development Fund, a federal body, was set up in 2005. The organisation receives funds from a 1% levy on telecoms licence holders in order to finance projects aimed at fostering research and development, and facilitating education and capacity building within the ICT industry.

**CONNECTIVITY:** In April 2011 Abu Dhabi became the first capital city in the world to be completely linked by fibre-to-the-home connections, whereby every individual building has its own fibre-optic cable, an unusually dense level of connectivity. In the same month, the quality of Abu Dhabi's physical infrastructure was boosted further with the launch of its own communications satellite. Al Yah Satellite Communications Company (Yahsat), a subsidiary of the government-owned investment company Mubadala, launched its first satellite, Y1A, in 2011, using Europe's Ariane launcher, followed by its second satellite, Y1B, launched from Kazakhstan using a Russian-American Proton Breez M launcher in April 2012.

The satellites were built in Europe in partnership with a consortium consisting of EADS Astrium and Thales Alenia. Though some communications bands on the satellites are reserved for the use of the UAE government, both feature a commercial component servicing the Middle East, Africa and Asia.

**DIRECT-TO-HOME HOTSPOT:** Yahsat's C-band is a telecommunications-grade band that is capable of carrying IP backhauling and GSM backhauling, while the company's Ku-band is run as a joint venture with SES Astra, a Luxembourg-based satellite solutions provider. The Ku-band transponders have enabled Yahsat to launch the first direct-to-home (DTH) hotspot in the region that is dedicated to high definition content delivery. Already, Yahsat carries a number of broadcasters in high-definition quality. Yahsat's Yahclick product, which delivers broadband internet to home and enterprise customers, uses a narrow satellite beam in Ka-Band, which makes for a more focused, better defined signal. This in turn

requires smaller, lighter receivers, which are lower in cost and easier to install. Multi spot beam technology also allows for frequency re use, resulting in 10 times more capacity at the same price as previous generations of satellites and allowing for DSL-like prices to end consumers. The firm believes there is plenty of untapped demand to roll out broadband services at affordable prices, especially among small and medium-sized enterprises (SMEs) and consumers in markets across the Middle East, Africa and Asia.

**DEMAND DRIVERS:** According to a 2011 report by Markaz, the Kuwait Financial Centre, ICT spending in the GCC in 2011-15 is expected to total $318bn, or some $64bn a year. Of this, Saudi Arabia is expected to account for around half, with the UAE in second place, followed by Qatar. According to Markaz, ICT spending in the UAE grew at a compound annual growth rate of almost 19% in 2003-10. The company expected the rate of growth to moderate in line with declining average revenue per user levels across the region and the growing maturity of the market, although the volume of investment is forecast to remain high and to increase in absolute terms.

As in many other Gulf ICT markets, spending by the government or government-affiliated companies such as state oil firm Abu Dhabi National Oil Company continues to dominate the sector, although the telecoms and financial services industries are also big spenders. While in the short term this is unlikely to change markedly, ICT use by the non-oil and private sectors has been growing rapidly in recent years.

Given ICT's relatively greater exposure to contracting and the generally rapid pace of change in the industry worldwide, the sector is poised to make the transition to being driven by private expenditure earlier than many other sectors of the economy. In terms of segmentation, the level of demand for security solutions continues to be high, among both government and private sector clients. Meanwhile, state expenditure on implementing e-government programmes is continuing and more ICT is being introduced into the emirate's school system, with the Abu Dhabi Education Council announcing in June 2012 a Dh330m ($89.8m) project to network some 268 public schools across the emirate (see analysis).

**OUTSOURCING:** Given the relative maturity of the market, outsourcing remains comparatively underdeveloped, but it is slowly being embraced by the industry. This is partly due to an unfamiliarity with

**Projected regional ICT spending, 2011-15 ($ bn)**

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| KSA | 25.3 | 30.6 | 31.5 | 33.4 | 34.5 |
| UAE | 11.5 | 12 | 12.5 | 13.1 | 13.8 |
| Qatar | 6.8 | 9.6 | 10.1 | 10.6 | 11.1 |
| Kuwait | 5.1 | 5.3 | 5.6 | 5.9 | 6.1 |
| Oman | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 |
| Bahrain | 0.9 | 0.9 | 1 | 1 | 1.1 |
| GCC total | 57.5 | 60.8 | 53.5 | 55.5 | 59.6 |

SOURCE: Markaz

ICT spending in the UAE grew at a compound annual growth rate of 19% between 2003 and 2010

the nature of the business, with many managers wary that outsourcing will lead to job losses among nationals. Nevertheless, the development of a local outsourcing industry in the form of players like Injazat, a joint venture between Mubadala and Hewlett-Packard, is starting to change attitudes.

While government clients may have other considerations, such as promoting Emiratisation, private clients tend to be interested in outsourcing as a way of achieving greater cost-control. Among other sectors, financial services has started to show great interest in cloud-based solutions over the past couple of years, and this area has seen strong growth.

**DATA CENTRE:** Injazat was founded in 2005 and operates the only Tier 4 data centre in the Middle East. Data centres house the essential computer systems for a business, as well as backup power and climate control systems. Injazat hosts more than 9000 servers, and has various managed services, including enterprise storage and backup, security and network services. The centre itself benefits from an integrated building management system to monitor the various climatic, power and access systems.

While the public sector still accounts for a significant proportion of Injazat's business, the company has slowly been attracting clients from across the Gulf region, in part by developing tailored solutions for industrial clients and for the financial services industry. Although linked with Hewlett-Packard, Injazat has the freedom to partner with a variety of clients to provide solutions, which is another factor that is giving the company a commercial edge.

**E-GOVERNMENT:** Although a great deal of progress has been made in recent years, there is still plenty of room to streamline procedures when it comes to delivering public services. As such, Abu Dhabi is continuing to invest in its e-government programme, which has been running since 2008, to reduce the cost of delivering services, to do so more efficiently and to increase transparency (see analysis). ADSIC

The financial services sector has started to show great interest in cloud-based solutions in recent years, and this field has seen strong growth

Some 55% businesses surveyed in 2012 had a connection with a speed of less than 2 MB per second

To help bridge the digital divide between older citizens and younger ones, ADSIC runs introductory courses across the emirate for people who are unfamiliar with computers

acts as a platform onto which other government departments can load their own systems, and in addition it operates an e-portal for accessing public services, as well as a contact centre for those who prefer to deal with the authorities over the phone.

In an attempt to bridge the digital divide between older, less tech savvy citizens, and younger, more aware ones, ADSIC also runs introductory courses across the emirate for people unfamiliar with computers, showing them how to operate and get the most out of them. Rashed Al Mansoori, the director-general of ADSIC, told OBG, "It is crucial to work in collaboration with the private sector while implementing government IT services. Public-private partnerships help enhance efficiencies and grow the capabilities of both sectors simultaneously."

**COMPETITION:** The ICT market in the UAE continues to be dominated by a few large companies with relatively few small players involved, and not many purely local firms. One exception to this is SecureTech an Abu Dhabi security solutions company founded in 2001. The company has more than 200 staff, its own data centre, and serves clients in the public sector, banks and telecommunications providers.

One positive feature of this market structure is that no one platform or system predominates, and work is generally spread around fairly evenly, which leads to greater competition and reduced costs. As well as Hewlett-Packard and Injazat, other big software providers in the UAE include Oracle, Cisco and Juniper. "The government is very progressive when it comes to IT implementation and this is reflected in its budgets and policy," Abdulla Al Neaimi, the CEO of SecureTech told OBG. "There is very high awareness and a desire to embrace cutting edge technology."

According to a 2011 survey by the TRA, 55% of businesses surveyed were running an internet connection with a speed of less than 2 MB per second. Some 73% of those surveyed expressed satisfaction with the speed of local connections but only 44% were satisfied with the price. However 93% of businesses had an internet connection of some sort, and 93% said it was important to their business.

**START-UPS:** In the UAE, and indeed the Gulf region as a whole, SMEs remain relatively underdeveloped and often suffer from a lack of funding and expertise or advice. Currently there is very little purely local software production and no local hardware production. Although Arabic-speakers account for around 5% of the world population, less than 1% of the internet is in Arabic and there is relatively little local content produced, especially in Arabic.

According to Tareq Abdul Raheem Al Hosani, the CEO of Yahsat, "Developing Arabic-language content is key to increasing internet penetration throughout the region. Internet consumption is higher in regions that use English as the primary language so this illustrates the importance of language-specific content." The authorities in Abu Dhabi are keen to remedy this, and the emirate has set up a dedicated media zone, branded as twofour54, to help attract companies producing Arabic-language content across a variety of online and traditional media. It has an incubation unit that is dedicated to supporting entrepreneurship in the creative industries, and has funded Apps Arabia, which aims to set up an indigenous Arabic applications business.

**BANKING BARRIER:** One barrier to the development of a start-up ecosystem has been the generally conservative nature of the banking system in the UAE. While this can be credited with helping the country avoid a serious recession, one unfortunate side effect of the global credit crunch has been to keep lending to start-up businesses to a trickle. However, there has been a general shift away from balance sheet funding towards looking at cash flow, and this has been helpful to ICT firms whose funding model is generally based around the latter.

The local venture capital industry remains in its infancy, but there are a number of funds in the region, such as Abraaj Capital's Riyada, a $650m fund to invest in SMEs; N2V, a subsidiary of Saudi Arabia's National Technology Group, which focuses mainly on

Internet statistics, 2012

| | January | February | March | April | May | June | July | August |
|---|---|---|---|---|---|---|---|---|
| Internet subscribers | 488,532 | 494,455 | 504,270 | 511,466 | 515,710 | 518,854 | 520,877 | 525,317 |
| Dial up* | 6568 | 5851 | 5757 | 5255 | 4985 | 4550 | 4355 | 3552 |
| Broadband | 481,964 | 488,604 | 498,513 | 506,211 | 510,725 | 514,304 | 516,518 | 522,125 |
| Broadband subscribers per 100 inhabitants | 11 | 11.1 | 11.2 | 11.2 | 11.3 | 11.3 | 11.3 | 11.3 |

SOURCE: Telecommunications Regulatory Authority

*Active subscribers

digital entrepreneurship and Arabic-language content; and the STC Fund, which is a partnership between Saudi Telecom Company and Iris Capital to support SMEs in the telecommunications and ICT sectors. In Abu Dhabi, there is also the Khalifa Fund, an initiative to assist young entrepreneurs. Moreover, the past few years have seen a small but significant number of young Saudi and Levantine entrepreneurs choosing the UAE as a place from which to grow start-ups, drawn by excellent infrastructure, connectivity and a liberal business environment.

**HARDWARE:** In 2007 Advanced Technology Investment Company (ATIC), a subsidiary of the government-owned investor Mubadala, bought a 65.8% stake in Global Foundries, a leading silicon chip manufacturer. It raised its stake to 86% in 2010 and Global Foundries embarked on a $5.4bn expansion in 2011. The firm was due to build a wafer fabrication plant in Abu Dhabi in 2012. However, in late 2011 it announced that the project had been postponed, citing uncertainty in the global economy. Despite this delay, the linkages between Global Foundries and other Mubadala entities offer the opportunity for significant knowledge transfer into the emirate.

**INTELLECTUAL PROPERTY PROTECTION:** A further challenge to the growth of the ICT industry in Abu Dhabi is the concern over intellectual property protection. While governments across the region have taken steps to crack down on infringements in recent years, particularly pirated music and DVDs, targeting pirated software has proved more challenging, with file sharing and torrent sites as popular in the UAE as they are in the developed world.

However, ADSIC now certifies all software that is used in government departments. Moreover, there is a higher level of public awareness of the dangers of malware and a lack of internet security generally, and this is slowly beginning to engender a greater level of suspicion towards pirate software among the public. In 2009 Injazat signed an agreement with the federal government to develop the UAE Computer Emergency Response Team, a national computer forensics and information security centre, while the federation has had legislation in place since 2006 to help prevent cyber-crime.

ICT spending in the GCC is expected to total $314bn over 2011-15

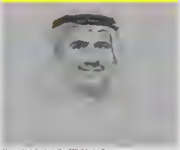
Margins on voice are tumbling as the public shows a growing appetite for data services

**WORKFORCE SKILLS:** As with many other fields, the shortfall in nationals equipped with adequate skills to work in the sector is an issue, and it will be some time before the reliance on expatriate labour can be reduced. Nonetheless, as per its economic diversification strategy, Economic Vision 2030, Abu Dhabi aims to position itself as a regional ICT centre, and to this end has been investing in ICT training and education for nationals at both the school and college levels. In 2010 ATIC and Abu Dhabi Education Council launched a semiconductor research and development strategy, which draws on the experience of knowledge economies such as Singapore and Ireland to develop a network of research institutes in the emirate linked to both the educational system and with the industry more broadly.

**OUTLOOK:** Given the continued uncertainty that exists in developed economies, most multinational ICT firms see their main source of growth over the next few years as lying in emerging markets, which have experienced much faster growth over the past five years. Abu Dhabi is no exception. As a place with good international connections, sound physical and communications infrastructure, and a large pool of financial and human capital, Abu Dhabi is increasingly seen as a good base for ICT firms looking to establish themselves in the region.

Moreover, with large development projects in transport, manufacturing and tourism rapidly diversifying the emirate's economy, Abu Dhabi is a fast-growing and increasingly significant ICT market in its own right. While government-affiliated entities look well positioned to continue to dominate the market over the short term, the rate of growth that is being seen in the non-oil sector means that private clients are likely to play an increasingly important role.

In 2010 ATIC and Abu Dhabi Education Council launched a strategy to develop a network of research institutes linked to both the industry and the educational system



Ahmad Abdulkarim Julfar, CEO, Etisalat Group

# Connecting a tech-savvy populace

## OBG talks to Ahmad Abdulkarim Julfar, CEO, Etisalat Group

**To what extent will government initiatives help improve information and communications technologies (ICT) penetration in Abu Dhabi?**

**JULFAR:** The ICT sector in the UAE has much potential due to the strong development of the telecoms sector and the technologically savvy local population. At the same time, this makes it more challenging for operators to keep up with the strong demand. In addition, government spending helps to spur ICT penetration in the local economy. For example, Abu Dhabi is focusing heavily on the education sector.

A major ICT-related development has taken place in education as all schools in the emirate will be connected to high-speed internet and will utilise smart education technologies. This programme has been rolled out in 300 schools already and is now being implemented in all schools within the emirate. This will help familiarise children with technology from an early age and allow them to use technology to improve their productivity and employability later in life. The Abu Dhabi Education Council also has online portals that help improve communication between the council and students and encourage transparency.

Additionally, e-government services via the Abu Dhabi Systems & Information Centre are also helping drive the industry forward. E-government has strong potential locally as people like the convenience of completing government transactions online. Furthermore, we encourage the population to swiftly adopt new technologies. This is a relatively young country so the people have experience adapting.

**With the convergence of data and voice communication technology, what impacts on the sector do you expect to see in the future?**

**JULFAR:** Mobile data services aside from SMS were largely unavailable five years ago. Today they account for about 20% of our business in the UAE, and in the future all telecommunications companies will be more data-centric. This is not because people will talk less than they do today, but because data is increasing rapidly, with the majority of this expansion coming from video. Voice is going to be a commodity service, and innovation and competition will focus on data services. Exponential growth is also predicted, and a challenge mobile operators are expected to face is the need to increase their capacity to meet this demand. Some examples of data applications include mobile video, internet, machine-to-machine communication, mobile payment, health and education.

**What role can fixed-line communication play in an increasingly mobile world?**

**JULFAR:** Fixed-line will always play a very critical role. Previously it was thought that increased mobile penetration would cause a decline in fixed-line demand; however, it's now known that mobile services have complemented fixed-line communications rather than reduced a demand for them. All mobile communication requires fixed connectivity back to a base station. It should be noted that the modern fixed network is not centred on the legacy copper line, but rather the fixed fibre network. The more fibre penetration you have available the better quality and faster the service will be. Fixed-line will always play a key role as the main base-line and foundation for a telecommunications network. For example, Vodafone acquired Cable & Wireless Worldwide, which shows that mobile operators must have a strong fixed infrastructure to keep up with increased data traffic.

One of the main key performance indicators of a nation's development is preparedness for ICT. According to a 2011 study by the Fibre To The Home (FTTH) Council Europe, the UAE ranked second worldwide in terms of FTTH penetration. Additionally, Abu Dhabi is the first world capital where all homes are connected to fibre cables. We feel that a fibre connection in every home and business will greatly benefit the country, enabling better delivery of digital products and services and spurring innovation in the ICT sector.

The emirate is looking to position itself as a global business centre

# Logging on

## Encouraging greater use of IT via e-government and e-learning

The government of Abu Dhabi is looking to introduce greater automation of service provision – or e-government. This has already started to bear fruit. In 2010-11 the UAE as a whole was ranked 24th in the World Economic Forum's Networked Readiness Index, and in third place for e-government readiness.

Partly, this is in response to global trends; Abu Dhabi is looking to position itself as a global business centre, and the skilled workers it seeks to attract are already used to carrying out a great many tasks online, such as banking or information finding, as well as dealing with the government. However, another reason the Abu Dhabi government has taken to e-government is that it offers the chance to deliver services more cost-effectively, and often more conveniently, while increasing transparency.

**SUPERVISION:** The main responsibility for the e-government programme lies with the Abu Dhabi Systems and Information Centre (ADSIC). ADSIC was founded in 2005 as a government committee charged with looking into how to implement IT policies and was upgraded to an independent unit in 2008.

Part of ADSIC's work is concerned with the government's internal administration code, such as drawing up guidelines and IT policies. However, the agency's principal task has been to host a platform upon which other government departments can provide services to the public.

ADSIC operates a dedicated e-government portal – abudhabi.ae – through which the public can do around 900 types of transactions with the authorities. Chiefly these consist of accessing information, paying fines, taxes and so forth, and obtaining government forms and submitting them electronically. ADSIC also operates a call centre so these matters can be dealt with over the phone.

**RESULTS:** So far, the e-government programme has been relatively successful. According to a survey of household internet use conducted by the TRA in 2010, while activities such as emailing and using social networking sites dominated usage, 6% of users claimed to have interacted with government agencies online over the previous 12 months. Additionally, 9% of correspondents had obtained information relating to health services, 11% had obtained information from government agencies and 12% had paid utility bills (which are paid to a state body in the UAE).

Though the most recent figures on e-government usage date from 2010, the rise in population and keen uptake among affluent UAE consumers of data services and smartphones means these figures are likely to have risen. In 2011 the UAE recorded mobile penetration of 149% while there were 454,000 dial-up subscribers and 874,000 broadband subscribers, yielding an internet user penetration rate of 56.4%.

**DIGITAL DIVIDE:** That said, as in many other countries, something of a digital divide remains. Older people tend to be less comfortable with computers and using them for services such as banking or dealing with the government. Moreover, Emiratis in general prefer to do things face-to-face.

However, the national population is very young, with around half of Emirati nationals in Abu Dhabi under the age of 20, according to figures from the Statistics Centre - Abu Dhabi. As with young people everywhere, they have grown up with computers and consider the ability to use them a right. For those Emiratis who want to improve their computer literacy, ADSIC runs special courses, which are available for free across the emirate.

ICT is now a full and integral part of the national curriculum in the UAE, and the government is moving to introduce greater use of computers in schools in a bid to enhance overall learning as well as improving e-literacy. Recent measures include a $90m project to link 268 schools together with a high-speed network to support e-learning, and an interactive environmental map of the UAE which has been developed by the Environment Agency to teach children about the importance of sustainability measures.

In 2011 the UAE recorded mobile penetration of 149%, while there were 454,000 dial-up subscribers and 874,000 broadband subscribers, for an internet user penetration rate of 56%.

The profitability base is shifting from voice to value-added services

# In demand

## The popularity of data services is growing, while network sharing is likely to promote greater competition

In 2011 the sector contributed 4.9% of the UAE's GDP and employed 10,798 people, while total investment in telecoms amounted to $1.6bn.

Continuing to mature, the telecoms market in the UAE exhibits a high rate of penetration and a keen appetite for new services, especially in data. Mobile demand, both voice and broadband, has seen a steady rise, in tandem with high population and economic growth. At the same time, the base of profitability as measured by average revenue per user (ARPU) is shifting from voice to value-added services, especially mobile internet.

**IN FIGURES:** As part of the UAE, the industry in Abu Dhabi is regulated by the Telecoms Regulatory Authority (TRA), a federal body. According to the TRA, in 2011 the telecoms sector contributed 4.9% of the UAE's GDP and employed 10,798 people. Total investment in the sector in the same year amounted to $1.6bn. This compares with respective 2007 figures of 4.1%, 10,695 people and $2.2bn. In 2011 monthly ARPU rates in the fixed, mobile and internet segments were $37.60, $40.30 and $56.10, respectively, compared with 2010 figures of $50.10, $38.12 and $45.20 according to TRA figures.

There are two telecoms operators in the country, Etisalat and du. Etisalat was formerly the state telecoms company. Since 2002 the company has been listed on the Abu Dhabi Securities Exchange, the local bourse, and the federal government retains a majority (60%) stake in the company. Emirates Integrated Telecommunications Company, which trades in the public as du, based in the neighbouring emirate of Dubai, has been operating since 2006. The federal government holds a 40% stake, while the emirates of Abu Dhabi and Dubai each hold 20% through various investment arms. The remainder is traded on the Dubai stock exchange, and the firm is structured as a publicly listed company. Both operators offer mobile services throughout the UAE.

An additional operator is Al Yah Satellite Communications Company (Yahsat), a subsidiary of government-owned investment company Mubadala, which received a licence from the TRA in 2010. Although it provides communications services to the government, the company also provides home and enterprise services. These are geared towards information and communications technology (ICT), data and broadband rather than voice telephony, and its services tend to be aimed at both the business and consumer segments.

**DEMOGRAPHICS:** The number of mobile subscribers in the UAE continues to grow, rising from 10.9m to 11.7m between 2010 and 2011. Penetration saw a slight increase, from 197% to 199%, and the country continues to record one of the world's highest penetration rates. The market is driven by high disposable incomes and the dynamics of the demographic mix.

According to the National Bureau of Statistics, foreigners account for just under 90% of the UAE's 8.3m inhabitants, meaning there is a large market for international calls. While nationals and highly paid expatriates tend to enjoy high disposable incomes and have an appetite for new technology and services, there is also a substantial consumer segment, largely made up of lower-income workers from South and East Asia, who are more sensitive to pricing. The high number of expatriates also helps account for the relative popularity of prepaid over post-paid subscriptions – 10.4m compared to 1.4m – as these involve minimal paperwork to set up and are generally cheaper.

In July 2012 the TRA launched the "My number, my identity" campaign to raise awareness of new registration procedures being rolled out across the UAE. The new regulations aim to combat identity fraud by requiring each user to register a mobile subscription in their own name using a passport or UAE identity card. Registration is expected to be complete within 18 months.

**Total sector revenues, 2007-11 (Dh bn)**

| | Mobile | Fixed | Internet |
|---|---|---|---|
| 2007 | 13.2 | 2.8 | 0.9 |
| 2008 | 17.3 | 3.2 | 1.7 |
| 2009 | 17.8 | 3.4 | 2.5 |
| 2010 | 17.5 | 3.2 | 2.7 |
| 2011 | 19.9 | 2.8 | 3.3 |

SOURCE: TRA

**OPERATORS:** Etisalat forms part of the Etisalat Group, headquartered in Abu Dhabi, which is one of the biggest telecoms groups in the world. In July 2012 Etisalat Group counted 172m subscribers, with operations in 16 countries, across the Middle East, Africa and Asia as well as a 27.4% stake in Saudi operator Mobily. In 2011 the group reported total revenues of $8.8bn, up from $8.7bn in 2010. Earnings before interest, tax, depreciation and amortisation (EBITDA) stood at Dh15.88bn ($4.3bn), down 12% from Dh16.56bn ($4.5bn) in 2010, while net profits amounted to Dh5.84bn ($1.6bn) in 2011, down 23% from Dh7.63bn ($2.1bn) in 2010. Etisalat announced a net profit of Dh1.87bn ($513.5m) for the second quarter of 2012, an increase of 3% over the previous quarter and up 17% from the same period in 2011. The company reported revenue growth as well with the second-quarter figure hitting Dh8.25bn ($2.3bn), a rise of 2% on the prior quarter and 4% year-on-year.

In February 2012 Etisalat Group announced it was pulling out of the Indian market after the country's Supreme Court revoked 122 licences granted in 2008, including that of Etisalat DB, a joint venture between Etisalat and India's DB Group, in which the UAE operator held 45%. The move obliged the group to write off $827m. The licences were issued by a cabinet minister accused of fraud, and were consequently deemed to have been awarded wrongfully, with the court ruling the licences should be put up for fresh auction. Another Gulf telecoms group, Batelco, also said it planned to exit the country subsequent to the ruling.

In September 2012 Etisalat announced that it would not be participating in India's Ministry of Communications and Information Technology auction of spectrum in 1800 MHz and 800 MHz bands. During the same month, Etisalat also announced that it had finalised the sale of a 9.1% stake in XL Axiata, an Indonesian mobile telecoms provider. Following the sale, Etisalat retains a 4.2% ownership stake in the company.

Revenues for du reached Dh8.9bn ($2.4bn) in 2011, up 25% on Dh7.1bn ($1.9bn) in 2010, while EBITDA was Dh2.9bn ($790m), up 45% on Dh2bn ($545m) in 2010. Net profits after royalty payments to the federal government were Dh1.1bn ($300m) in 2011, compared to Dh1bn ($272m) in 2010, but this reflects an increase in the federal royalty. The company, which has been expanding aggressively in the mobile market, reported 5.75m subscribers in 2011, including mobile and fixed line, compared to 4.81m subscribers the previous year. According to the TRA, du now accounts for 46% of the mobile market in the UAE. Both operators pay royalty fees to the government, though not on an equal basis. In 2011 du paid 15% of net profits plus 5% of group revenues. When the authorities originally licensed du they exempted the new operator from paying royalties until it turned a profit, which it did not do until 2008. Since then, du's annual royalty fees have been gradually increased, though not to the same level as Etisalat.

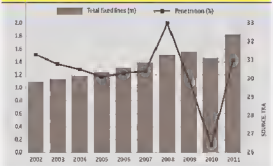
**FIXED LINES:** Fixed-line services in the UAE remain underdeveloped compared to mobile. According to the TRA, fixed-line penetration grew from 26% to 31% between 2010 and 2011. In absolute terms, there were 1.83m fixed-line subscribers in 2011, compared to 1.46m in 2010. Fixed-line prices are low by world standards, with free local calls and the cost of line rentals kept to a minimum by the government. On the other hand, there is little competition; du provides fixed-line services in the newer districts of Dubai and in the rest of the country Etisalat is the provider, reflecting its history as the incumbent. To date, subscribers can only choose their fixed-line provider in a few dedicated business districts. While domestic calls within the UAE remain economical, the international gateway is a government monopoly, and international call rates are relatively expensive. In 2008 the UAE banned voice over internet protocol (VoIP) providers such as Skype to protect revenues from the international gateway.

Broadband prices remain relatively high as operators seek to recoup income from providing fixed networks at a low cost. As a result, fixed-line broadband penetration is low, with cheaper dial-up connections still common.

**BROADBAND:** This has a knock-on effect on broadband prices, which remain comparatively high as operators seek to recoup income from providing fixed networks at a low cost. One result of this is a relatively low penetration rate for fixed-line broadband, with cheaper dial-up connections still common. In terms of internet users, the TRA recorded that in 2011, there were 1.32m subscribers in the UAE, with 873,395 people accessing the web using broadband and 454,000 using a dial-up connection. This compares with figures of 790,000 broadband users and 584,000 dial-up users in 2009. In 2011 the TRA recorded a broadband penetration rate of 14.8%, compared to 14.3% in 2010.

**COMPETITION:** Competition in the sector is characterised by offers and promotions rather than outright price cuts. This helps explain the UAE's high penetration rate, since consumers often keep two mobile subscriptions and use whichever happens to have the better offer running at any given time. The authorities have obliged telecoms companies to invest heavily in infrastructure, the UAE counts the second-largest fibre network in the world, and the quality of the physical networks is generally considered excellent. The authorities fear that should there be a price war and a "race to the bottom", it would eventually hollow out the revenue base required to sustain this infrastructure, obviating much of the original rationale behind introducing a second operator. Thus, despite the idea being

Total UAE fixed lines & penetration, 2002-11



Operators have been investing heavily in developing long-term evolution networks, which allow for faster speeds and better definition

raised from time to time, there are no plans to licence a third operator for the foreseeable future.

Number portability, which has a proven track record in helping to spur competition by lessening the inconvenience of changing operator, was due to be introduced in 2010, but was postponed due to technical issues. According to the TRA, these have now been largely overcome and number portability is due to be introduced soon, although no firm date has yet been set. However, given that many consumers already keep both an Etisalat and a du subscription, it may have less of an impact in the UAE than in markets where it is usual for people to maintain just one mobile line.

**TRENDS:** As elsewhere in the world, voice services are becoming less and less attractive, as competition forces prices downwards, albeit slowly, and data services account for an increasing share of profits. Operators in the UAE have been investing heavily in developing long-term evolution (LTE) networks – a form of so-called "fourth generation" or 4G network, which allows for faster speeds and better definition, especially important for offering services such as video-calling or on-demand television, which have grown in line with the popularity of tablet computers and smartphones. In 2011 Etisalat initiated a 4G domestic broadband service, having invested Dh6bn ($1.6bn) on upgrading its network, while du announced in March 2012 that it was to partner with Cisco to develop its own LTE network, and started offering 4G services in June of that year.

In October 2011 Etisalat launched a new internet television service, eLife TV, to complement its existing triple-play services offering over 350 channels and an on-demand film service. In March 2012 the company reported that this service has reached the 450,000-subscriber mark. Then in July 2012, the company won three awards at the Mobile World Congress in Barcelona, two for its Mobile Baby programme, an app that won best health care product and best women's product, while Etisalat Commerce, a payments platform, won in the best mobile money innovation category. In addition to its LTE network, in April 2012 du introduced a very small aperture terminal service platform, allowing it to offer a variety of data services and integrated solutions to corporate users. In January 2012 du launched a new television package aimed at the Russian community in the UAE, with at least eight Russian channels.

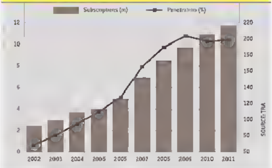
**NETWORK SHARING:** While the rapid deployment of 4G technology is testament to the technical sophistication of the UAE's telecoms networks, the performance of these networks does not always reflect this, due to underutilised capacity. To gain more consistent quality across the network and promote competition, the authorities are keen to encourage the two operators to share their networks, by eliminating underused capacity in fibre-optic cables and enabling bit-stream access. Discussions between the TRA and the operators to establish wholesale prices acceptable to all parties are ongoing. Both operators, having invested major sums in developing their networks, wish to receive commensurate compensation for allowing access to their competitor. However, the technical issues are largely resolved, and bit stream access could be implemented as early as the end of 2012 (see analysis).

In September 2010 the GCC agreed in principle to an agreement to limit roaming charges between member states, with benchmark rates finalised in June 2011. While Gulf roaming charges generally remain high compared to OECD markets, this agreement is due to be implemented across the GCC by the end of 2012. However in February 2012 ratings agency Moody's warned that reduced roaming rates could have a negative impact on operators across the Gulf region. Given that competition for market share remains intense, the reduction in charges would contribute to decreased profit margins in operators' domestic markets, which have historically generated a great deal of cash for Gulf operators, in turn enabling many to expand abroad. According to the agency, strategies to compensate for lost roaming income are likely to result in tighter margins across the industry. In early 2012 Etisalat announced it would reduce its roaming rates by 26%, bringing them in line with du's charges. Although the GCC agreement applies to voice calls only, data services are also expected to come down in price. Over the long term, roaming rates to countries outside the GCC may also fall as operators seek to maintain market share, but look unlikely to drop markedly over the short term.

Gulf Bridge International announced in February 2012 that its subsea fibre-optic cable of the same name was open for business. Providing a fast link between the UAE, Qatar, Saudi Arabia, Bahrain, Kuwait, Iraq, Oman and farther afield to Europe and India, the cable has an initial capacity of 5.18 Tbps and is designed to accommodate rapid future expansion of the network.

**OUTLOOK:** Continuing economic and population growth in the UAE mean the telecoms market is set to grow, both in terms of value and the number of subscribers. Take-up of data services remains high, and these, rather than voice services, are increasingly driving profitability. In particular, multi-platform services, such as mobile broadband and triple-play services, are assuming greater importance. With operators moving towards sharing their networks, competition in fixed-line should intensify, benefitting broadband and business consumers.

Mobile subscriptions, 2002-11




The emirate has been investing in its physical telecoms network

# Wired up

## Moving to network sharing to establish a more level playing field

As part of its plan to end its reliance on oil and gas, Abu Dhabi is looking to become a business centre on a world scale, based on high-end manufacturing, tourism and the knowledge economy. An essential part of doing this is connectivity, both in terms of transport links and of telecommunications. To this end, the emirate has been investing heavily in upgrading its physical telecoms network.

Abu Dhabi is alone in the Gulf in possessing its own sovereign communications satellite system. Al Yah Satellite Communications Company (Yahsat), which is a subsidiary of government owned investment company Mubadala, launched its first communications satellite, Y1A, in April 2011, using Europe's Ariane launcher. This was followed by its second, Y1B, which was launched from Kazakhstan using Russian-American Proton Breez M Launcher in April 2012.

The satellites were built in Europe in partnership with a consortium consisting of EADS Astrium and Thales Alenia. While much of the original impetus behind launching was to provide secure and resilient communications for the UAE government, Yahsat also carries considerable capacity for commercial services, carrying direct-to-home television channels to the MENA region, as well as delivering satellite broadband services to homes and offices via its Yahclick brand. The company has also found a great deal of interest from regional television networks interested in high-definition broadcasts.

**ACCESS ALL AREAS:** Yahclick serves 28 countries across Africa, the Middle East and Asia, bringing the option of broadband internet connectivity to millions of un-served and under-served people. "The price of satellite services has come down significantly as more operators have entered in the market," Tareq Abdul Raheem Al Hosani, the CEO of Yahsat, told OBG. "That said, there are still enormous opportunities to serve emerging markets in the MENA and sub-Saharan regions, as well as parts of Asia. Additionally, more and more services are being offered to consumers aside from the existing corporate clients." For satellite broadband, the company utilises the Ka band to deploy focused spot beams using frequency re-use technology to maximise capacity and allow for smaller and lower-cost ground terminals. This enables significant cost savings to be passed on to the consumer.

In addition to the satellite system, the UAE's two telecoms operators, Etisalat and du, have been investing heavily in their fixed-line networks. In April 2012, for instance, Etisalat finished installing its fibre-to-the-home (FTTH) network in Abu Dhabi, making it the first capital city in the world where each household has its own direct fibre link (as opposed to copper cables carrying calls to an exchange, where they enter the fibre network). In 2011 total capital expenditure amounted to 13.3% of group revenues, or Dh4.3bn ($1.2bn), compared to 18.5% of group revenues, Dh5.9bn ($1.6bn), in 2010, reflecting the costs of installing the network. For its part, du stated in October 2011 that it had spent more than $1.9bn over the past five years of its operation, and expected to spend $436m on upgrades alone in that year. The company also said it had spent more than $82m on its own FTTH network.

**BROADBAND PROVIDERS:** However, while both providers may maintain high-quality networks, fixed-line services remain a virtual monopoly, with the ability to switch between Etisalat and du available only in a few dedicated office parks and free zones.

A 2011 survey of businesses undertaken by the Telecoms Regulatory Authority (TRA), a federal body, found that while 87% were satisfied with the quality of fixed-line services overall, only 58% were satisfied with the price of calls from fixed lines, while just 73% expressed satisfaction with the speed of fixed internet connections and only 44% with the price. For mobile broadband, only 40% were satisfied overall, and just 18% were satisfied with the price. Over half of all businesses were on speeds of

In April 2012 Etisalat finished installing its fibre-to the home network, making Abu Dhabi the first capital city in the world where each household has its own direct fibre link.

The two main operators have been unwilling to share their networks

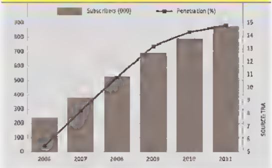
The TRA wants to establish wholesale rates for bit-stream access and dark fibre. Both would allow the network to be used at full capacity and reduce operating costs

less than 2 Mbps while 17% of businesses surveyed said they would switch from dial-up to broadband if the price were to fall. Some 93% of business internet subscriptions were with Etisalat, 4% with du, and 3% of businesses used both. The international gateway remains a government monopoly, and only 9% of businesses surveyed attempted to use carrier selection to reduce the cost of international calls, which accounted for 9% of fixed-line traffic but 18% of total phone bills. Given that local calls are free from fixed lines, international rates are even more expensive than this figure would suggest.

If the UAE is not to lose its competitive edge, then greater competition is necessary to bring down the price of broadband to more satisfactory levels. So far, the main stumbling block has been the unwillingness of both operators to share their networks. Partly this is understandable as both parties have invested a great deal of cash over the past few years, and do not wish to see their rival reap the benefit.

**ROYALTIES:** The process is complicated by the royalties system that currently prevails, in which fees

Broadband subscribers, 2006-11




are paid to the federal government. Etisalat, the incumbent, pays a royalty of 50% of group revenues, while in recent years du has only been required to pay a fraction of this rate. In 2008 and 2009, as the operator found its feet, the government charged no royalty at all. Subsequently, du was charged 15% of net profit, rising in 2011 to a royalty of 15% of net profits, plus 5% of group revenues. The government says this disparity is compensation for continued costs incurred by the operator in installing its own fixed and mobile networks. However, both operators are now at around parity in the mobile market, with du claiming 46% to Etisalat's 54% market share. As a result, Etisalat has recently called for its own royalty rate to be lowered, or at least equalised with its competitor's rate. However, Etisalat continues to dominate the fixed-line market, claiming 87% of business fixed line subscriptions, according to the TRA, compared to 5% of businesses that subscribe to du and 8% that maintain a line with both providers.

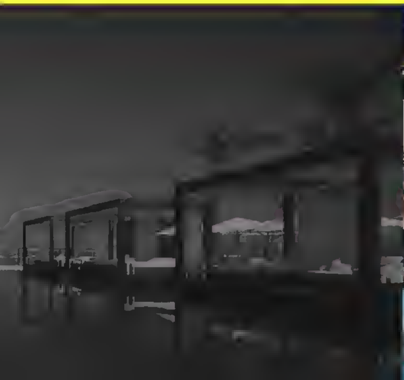
**INTERCONNECTION:** The TRA is keen to establish wholesale rates for both bit-stream access and dark fibre. Bit-stream access is a technology that allows for sharing of data access to networks, while dark fibre refers to underused capacity in the fibre network. Both bit-stream access and the elimination of dark fibre would allow the network to be used at full capacity and lower operating costs, savings which could be passed on to the consumer, while helping to create a more level playing field. Although network sharing has been on the agenda for some time, with dark fibre originally due to be opened up in 2011, technical issues have delayed its introduction. These issues have now largely been resolved and the TRA told OBG that it expected bit-stream interconnection services to be implemented soon. Sharing networks for voice services was activated in March 2012, but these do not constitute a profitable segment as local calls are already free.

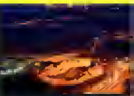
As has generally been the case with mobile voice services, the regulatory authorities are keen to avoid an all-out price war that would damage revenues and operators' ability to reinvest in the network. That said, once bit-stream and dark fibre access are introduced, consumers will gain the ability to switch fixed-line providers, meaning that customers are likely to benefit from better service, while the price of both broadband and data services is expected to fall.

Competition in the mobile market generally comes down to offers and promotions, with many consumers keeping both an Etisalat and a du subscription so as to take advantage of whichever offers the best value at any given time. In broadband and data, operators will likely compete on a similar model, perhaps offering greater speeds for the same price or advantageous triple-play deals (bundling fixed-line, broadband and cable television in one package) rather than cutting broadband prices to the bone. Businesses are likely to benefit from more tailored packages, particularly the smaller businesses, which may be able to afford to upgrade to broadband.

# Tourism & Culture

Boosting leisure activities to unlock further growth
Modern facilities are attracting diverse visitors
Growing objectives to expand business tourism
Aiming to promote a rich historical and cultural heritage





Tourists are being attracted by the growing range of activities

# Giving the grand tour

## New construction and greater investment prep the emirate to be a premier destination

Hotels in the emirate hosted more than 2.1m visitors in 2011 alone. This figure continues to rise, with the authorities targeting 3.2m by 2015.

As one of the 12 strategic sectors identified in Abu Dhabi Economic Vision 2030, tourism plays a central role in the government's plan to reduce the economy's reliance on the hydrocarbons industry. To this end, Abu Dhabi has invested heavily in creating attractions to draw tourists, as well as building hotels and expanding the national airline to make it easier for international visitors to travel to the emirate. The government is also taking a multi-pronged approach when it comes to attracting tourists, reaching out to leisure travellers by emphasising a variety of Abu Dhabi's assets – including culture, beaches, golf, nature and amusement parks – while at the same time making the emirate more amenable to business travellers.

**MORE VISITORS:** The tourism sector has steadily grown in recent years, as reflected in the consistent rise in the number of hotel guests. According to the Abu Dhabi Tourism & Culture Authority (TCA), the government entity that oversees the sector, the emirate's hotels hosted some 2.1m people in 2011, up from 1.8m in 2010 and 1.5m in 2009. While this growth is impressive, these figures may underestimate the number of visitors to the emirate for two reasons. First, Abu Dhabi City is a short drive from Dubai, so some tourists see Abu Dhabi's sights as a day trip. Second, according to the TCA, a significant number of visitors stay with friends and family rather than at hotels. Since it is difficult for officials to measure the size of either one of these groups, hotel guests remain for now the best proxy for the number of people who visit the emirate.

Looking ahead, the TCA has targeted further increases in the total number of hotel guests, aiming to reach 3.2m by 2015, equivalent to an average annual rise of more than 10%. Results for early 2012 indicate that the authority may not have much difficulty in achieving its target, at least in the short term. During the first six months of 2012, the number of hotel guests hit 1,189,995, a 14% improvement over the 1,041,804 recorded in the same period the prior year. The TCA is also aiming to increase the average length of stay (LOS) for hotel guests. Although the average LOS fell slightly between 2008 and 2009 (from 3.11 to 2.6 nights), this metric has steadily risen since then, reaching 2.83 in 2010 and 2.97 in 2011. The growth in 2011 has been attributed to marketing campaigns to raise awareness of Abu Dhabi, an uptick in the number of high-profile events staged in the emirate and the authority's continued efforts to work with tour operators. The goal for 2012 is to reach an average LOS of three nights, a target that seems attainable in part because officials are working to increase the number of activities available to visitors, which will in turn encourage them to stay longer. "The local tourism industry needs to create additional awareness about Abu Dhabi's offerings," said Patrick Nayrolles, the general manager of the Monte Carlo Beach Club on Saadiyat Island. "There is a growing level of capacity in terms of hotel rooms and not enough people to fill the beds."

**CITY HIGHLIGHTS:** While the emirate's tourism offerings are by no means limited to Abu Dhabi City, the UAE capital is increasingly a draw thanks to the development of two nearby islands, Saadiyat and Yas. The former is being earmarked as a cultural centre, with plans to build at least three museums on the island, in addition to a number of leisure, tourism, retail and residential facilities. Meanwhile, Yas is already home to Ferrari World Abu Dhabi amusement park, Yas Waterworld Abu Dhabi, several hotels and the Yas Marina Circuit, which hosts a Formula 1 Grand Prix race every year. A major shopping centre, Yas Mall is also in development.

Located around 500 metres off the coast of Abu Dhabi, the 27-sq-km Saadiyat Island is expected to be completed by 2020, according to master planner Tourism Development & Investment Company (TDIC), a government owned entity established in 2006. As envisaged, the island will also eventually be home to approximately 145,000 residents in addition to functioning as a centre for culture, hospitality and commerce.

In 2011, the first two of four five-star resorts to be located on the island opened, the Park Hyatt Abu Dhabi

Hotel and Villas and the St. Regis Saadiyat Island Resort. The Park Hyatt, owned by Abu Dhabi National Hotels, is the first Hyatt-branded hotel in Abu Dhabi City. The St. Regis, operated by Starwood and owned by TDIC, has 377 rooms and suites. Next to the hotel is a separate St. Regis-branded residence with 259 apartments and 32 residential villas. Other international hotels due to open facilities on Saadiyat are Rotana Hotels & Resorts, Mandarin Oriental and the Shangri-la, owned by the Abu Dhabi-based Al Jaber Group.

All of the island's hotels will be located along Saadiyat Beach, a tourist attraction in its own right, covering 5.28m sq metres and having 9 km of natural beach. The Saadiyat Beach Golf Course, designed by Gary Player, is located adjacent to the beach and next to the St. Regis, while various beach clubs will offer leisure facilities to visitors. The first such club – the Monte Carlo Beach Club – opened in 2011. These facilities are not only important for enticing leisure tourists, but also for business travellers attracted to Saadiyat thanks to the meetings and conference facilities already being operated by the Park Hyatt and the St. Regis.

Meanwhile, the island's cultural district, which will cover 2.4m sq metres, will be home to at least three museums, as well as a performing arts centre, boutique hotels, a retail and commercial area and luxury residences. The first of the museums scheduled to open, the Louvre Abu Dhabi, will start operations in 2015, followed by the Zayed National Museum in 2016 and the Guggenheim Abu Dhabi in 2017. All three facilities have been designed by Pritzker Prize-winning architects. The cultural district already features one centre, the Manarat Al Saadiyat, a purpose-built 15,400 sq metre building with its own permanent galleries, in addition to space for hosting large-scale art exhibitions in its spacious events facilities and 250-seat theatre.

**YAS ISLAND:** Another key component in Abu Dhabi's push into the tourism industry is the development of Yas Island. Occupying a total land area of 2500 ha, the island, like Saadiyat, will eventually offer a variety of touristic attractions in addition to hotels, retail facilities, food and beverage outlets, and residential areas, according to master developer Aldar Properties.

The island is already the location of some major touristic attractions, including Yas Marina Circuit, which hosts the Etihad Airways Abu Dhabi Grand Prix every year, a highly anticipated event since the inaugural race in 2009. The track has covered grandstands capable of seating 50,000 attendees and a hotel that straddles the track. During the remainder of the year, the circuit's facilities are used for other racing events, as well as hosting corporate events and conferences. Visitors can also participate in motorsports related activities year-round, including driving on the track, riding as a passenger in a modified two-seater F-1 racing car, and karting.

**Hotel guests by country, 2011 & 2012 H1**

| | 2011 | 2012 | Growth % |
|---|---|---|---|
| UAE | 410,310 | 449,037 | 5 |
| UK | 72,598 | 71,455 | -2 |
| India | 50,026 | 65,519 | 31 |
| Germany | 31,998 | 49,125 | 44 |
| Egypt | 38,535 | 42,020 | 5 |
| US | 42,895 | 40,857 | 5 |
| Saudi Arabia | 25,784 | 36,430 | 35 |
| Philippines | 19,821 | 30,949 | 55 |
| Jordan | 21,280 | 24,448 | 15 |
| France | 24,364 | 23,656 | -3 |

SOURCE: TCA

Sector development is focused on diversifying the range of activities for leisure and business tourism

Major developments are taking place on islands offshore that are designed to cater to entertainment, retail, global sports events and large corporate functions

Adjacent to the Yas Marina Circuit is the Ferrari World Abu Dhabi theme park, which opened in November 2010. The largest indoor amusement park in the world, Ferrari World has the world's fastest rollercoaster. Meanwhile, du Arena, formerly known as Yas Arena, is also located nearby and has already hosted a number of major international musical acts, including Elton John, Eric Clapton, Prince and Madonna. Hosting big-name artists can benefit the tourism sector by creating demand for hotel rooms and other local services, and raising global awareness of Abu Dhabi as a destination.

**DIVERSITY:** Other leisure options on Yas Island include a golf course (Yas Links), which also has conference and meeting room facilities that can be used for corporate events and weddings. A new attraction, set to open in late 2012, is Yas Waterworld Aqua Park, which is a $165m project being developed by Aldar. It is intended to highlight the emirate's pearl diving heritage through its 43 rides, slides and other attractions.

Looking further ahead, Yas Mall is expected to be completed by the end of 2013, with contractors on site as of the first quarter of 2012. The retail complex, which will be the second-largest mall in the UAE after Dubai Mall, will have 230,000 sq metres of gross leasable area and will be home to a variety of brands. Yas Island is already the location of an IKEA outlet that opened in 2011, which was joined by a 5443-sq-metre Ace Hardware store in August 2012.

While Yas Island can be reached easily from downtown Abu Dhabi City as well as Dubai, visitors have the option to stay at one of the seven hotels on the island.

New visitors are being drawn to destinations across the emirate attracted to the rich cultural heritage, natural beauty and wildlife viewing.

All are owned by Aldar and run by global hotel operators, including IGH (Crowne Plaza and Staybridge Suites), Rezidor (Radisson Blu and Park Inn) and Rotana (Rotana and Centro). While these six properties are located in an area known as Yas Plaza (which is also near the circuit), the seventh sits astride the F1 track; this property is currently managed by the Viceroy Hotel Group.

**OASIS CITY:** To the east of Abu Dhabi City and close to the Omani border is Al Ain, the historical heartland of the emirate and birthplace of the late Sheikh Zayed bin Sultan Al Nahyan, the founder and first president of the UAE. As a holiday destination, Al Ain is popular with Emiratis as well as tourists from the other GCC countries. According to the TCA, some 266,000 hotel guests stayed in Al Ain in 2011, a figure that the authority would like to increase to 400,000 by 2013. Also known as Oasis City, Al Ain is taking an increasingly prominent role in the emirate's overall tourism strategy.

Efforts to boost the profile of Al Ain have included a complete refurbishment of Ain Al Fayadha, which reopened in May 2012 after a three-year break and a $10m renovation. The 36-sq-km property to be renamed One To One Hotel and Resort, includes luxury villas as well as a boutique 26 room four star hotel. Facilities also include a racetrack that is open to guests.

The hotel is located close to Wadi Adventure, a water park opened in May 2012 and catering to kayakers, white water rafters and surfers. Other outdoors attractions nearby to the city include the Al Ain Zoo, which is being redeveloped as part of the 900-ha Al Ain Wildlife Park & Resort to include a wildlife-themed safari and a newly expanded Sheikh Zayed Desert Learning Centre, as well as a destination resort, retail facilities and a residential community. The Sheikh Zayed Desert Learning Centre will take visitors on a journey to showcase the natural and cultural history of deserts worldwide, honouring the late Sheikh Zayed and his commitment to the environment, wildlife and conservation.

While these varied attractions are important draws for visitors to Al Ain, the area is perhaps best known as a cultural centre and the location of several prominent historical sites, four of which were added to the UNESCO World Heritage List in 2011 (see analysis). The four sites – Hili, Hafit, Bidaa Bint Saud and the oases areas – feature important historical remnants such as circular stone tombs from 2500 *BCE*, a wide range of adobe constructions and one of the oldest examples of an aflaj irrigation system that dates back to the Iron Age. Visitors are currently able to access parts of Hili via the Hili Archaeological Park, which will benefit from a government-backed project to update and improve the ancient site. The Al Ain National Museum, which opened in 1971 and showcases items such as Bedouin jewellery and musical instruments, in addition to archaeological artefacts, will also be subject to a three-year renewal project headed by the government.

**WESTERN REGION:** Comprising 71% of the UAE's total landmass, Al Gharbia also known as the Western Region,

is another important centre for tourism. Known for its natural beauty and vast desert expanses, a number of investments have been made in recent years to enhance the region's attractions. Chief among these are two destination resorts, the Qasr Al Sarab Desert Resort and the Desert Islands Resort and Spa, both operated by the Thai hotelier Anantara.

Located in the Liwa Desert, the 206-room Qasr Al Sarab has become one of the emirate's showcase tourism attractions. Activities include camel treks, desert walks or dune bashing for the more adventurous. Sir Bani Yas Island is another staple component of Abu Dhabi's tourism offering. Accessible by a 25-minute flight from Abu Dhabi's Al Bateen Airport, the 87-sq-km island is home to several thousand indigenous animals and the Desert Islands Resort and Spa. The wildlife game drive is the most popular attraction, along with mountain biking, kayaking and snorkelling.

Al Gharbia also plays host to a number of festivals and other annual events such as the Al Dhafra Camel Festival, Al Gharbia Watersports Festival and the Liwa Date Festival drawing visitors from the GCC and beyond.

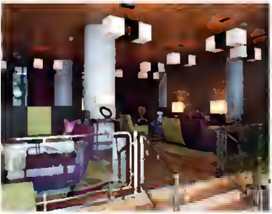
**BUSINESS TRAVELLERS:** Officials are also keen to develop the meetings, incentives, conferences and exhibitions (MICE) segment, aiming to more than double its economic impact by 2020 (see analysis). At the centre of MICE activity is the Abu Dhabi National Exhibition Centre (ADNEC), opened in 2007 and owned and operated by Abu Dhabi National Exhibition Company, a government-owned entity. The list of events at ADNEC includes annual conferences, such as IDEX (one of the world's largest annual defence exhibitions), the World Future Energy Summit and the Abu Dhabi International Petroleum Exhibition, which are supplemented by a growing number of one-off events. For example, in February 2012 ADNEC hosted the World Ophthalmology Congress, which brought some 12,000 delegates to the exhibition centre. Large conferences boost Abu Dhabi's reputation in the global events planning market, providing it with a track record that will make it easier to win new business moving forward.

Organisers of more modest-sized business meetings and conferences have a variety of options when it comes to choosing a venue in Abu Dhabi. For example, the management at Yas Marina Circuit is now focused on building a MICE business and utilising its track, hotel and conference centre assets year-round. Meanwhile, rapid growth in the number of hotels in Abu Dhabi has created additional capacity in the MICE segment. But perhaps more importantly this rise in hotel capacity has

### Key hotel indicators, 2009-11

| Item | 2009 | 2010 | 2011 |
|---|---|---|---|
| No. of guest arrivals (m) | 1.54 | 1.81 | 2.11 |
| No. of guest nights (m) | 4.32 | 5.13 | 6.27 |
| Avg. length of stay (days) | 2.8 | 2.83 | 2.97 |
| Occupancy rate (%) | 72.17 | 54.60 | 68.89 |
| Total revenue (Dh bn) | 8.28 | 4.22 | 4.37 |
| RevPAR (Dh) | 538.3 | 366.9 | 337.53 |

SOURCE: TCA



More than 20,000 hotel rooms are available to support growth in business tourism

meant that the emirate – with its 20,000-plus rooms – is now capable of bidding for major conferences that can be held at ADNEC.

**HOTELS:** Although visitor rates have expanded over the past few years, the increase in supply has been faster and represents a significant shift from what is considered to have been an "under hotelled" market as recently as 2008. Indeed, there were 12,727 rooms available in hotels and hotel apartments in that year, with an average occupancy rate of 84%, according to the TCA. By 2009 the number of rooms had jumped to 17,104, while the average occupancy rate had fallen to 72%. This trend continued in 2010, with rooms rising to 18,832 and occupancy hitting a low of 65%. Encouragingly, in 2011 occupancy was up to 69%, even as the number of rooms continued to increase, reaching 21,254.

However, this rise in occupancy may have come at a cost, with revenue per available room (REVpar) falling from Dh366.90 ($99.90) in 2010 to Dh337.52 ($91.90) in 2011, according to the TCA. Anecdotal evidence also suggests that room rates are much lower than they were during the peak period in 2007 and 2008. "Hotels have had to make the proper adjustments in this tight market," Philippe Harbe, the corporate director of operations at One to One Hotels, told OBG. "Among those adjustments is a stronger reliance on revenues from the food and beverage side of services. This area can be a useful way to compensate for drops in room rates."

While Abu Dhabi's hoteliers will wait a long time before seeing the prices that prevailed in 2008, room rates will rise again if and when demand catches up with supply which seems more possible given the recent success of ADNEC and the new projects that are expected to open on Saadiyat and elsewhere. Alternatively, the government could limit the supply of hotels through reducing the number of licences that it grants to build new facilities, although it has yet to do so. At present, all developers of hotel projects are required to apply for a licence from the TCA, at which point the authority will inform them of the current market dynamics.

Modern facilities are increasingly playing host to international exhibitions and conference events. Growth in business tourism will complement the boost in leisure tourist numbers.

Hotel room rates have fallen in recent years, with quality remaining high. Growth in the aviation sector will potentially boost the flow of visitors to support expansion in the hotel segment.

They can then choose to apply for a licence, after which each application is reviewed on a case-by case basis.

Some maintain that the emirate has not yet reached saturation, and as such, the substantial stock of high-quality rooms may become a market draw in itself. According to Khalfan Al Shamsi, the director of marketing for hotels at Abu Dhabi National Hotels, there is room for more hotels in the emirate. "More business people will continue to come to Abu Dhabi as industry expands," he told OBG, adding that the tourism sector will be aided by Etihad Airways continuing to open additional routes to new corners of the globe.

**FLYING HIGH:** Indeed, as the national airline of the UAE, Etihad Airways plays a central role in Abu Dhabi's tourism strategy, by making it easier to reach the emirate from a growing number of cities. In part it has done this via purchasing stakes in existing airlines and entering into code-sharing agreements. For example, Etihad announced in December 2011 that it was raising its stake in discount airline Air Berlin from 2.99% to 29.2% by buying 31.6m shares for about $95m, while at the same time providing financing for the purchase of new jets. The agreement includes a code-sharing deal that will help Etihad increase its business in European markets like Germany, Austria, Switzerland and Spain.

Perhaps not surprisingly, data from the TCA shows that the number of German hotel guests jumped sharply in the first half of 2012, rising from 154,606 to 216,317, an increase of 46%. This makes Germany the fifth-largest source of hotel guests in the emirate, following the UAE (813,010), the UK (298,969) and India (234,043) and the US (219,722) as of the first half of 2012. Etihad has also been busy promoting Abu Dhabi as a stop-over destination, announcing in May 2012 that its passengers who travel through Abu Dhabi will get one free three-, four- or five-star hotel night for any stay of at least two nights through December 1, 2012. Discounts will also be available for desert safaris and city tours.

**OUTLOOK:** As Etihad expands its market operations, it creates more awareness of Abu Dhabi as a holiday destination and location for major business conferences. Meanwhile, the TCA is taking steps to put Abu Dhabi on the global tourist map by opening more offices, most recently in Saudi Arabia and the US. The latter involved a four-day event in New York City's Times Square in May 2012, which kicked off with a video showcasing the attractions of Abu Dhabi, including the Sheikh Zayed Grand Mosque and traditional Bedouin life. A large white tent was also raised in the centre of Times Square, with service staff in traditional Emirati clothing giving visitors dates, coffee and traditional henna decorating on hands. While the cost of such an event may be high, the return is potentially enormous, with more than 500,000 people from around the world passing through Times Square every day. Indeed, with Abu Dhabi having invested significantly in developing the tourism sector, it may now make economic sense to increase promotion of the emirate on a global stage.

The emirate hosted about 500,000 business event visitors in 2010

# Highlighted host

## Well-placed emphasis on the MICE segment could yield great returns

The Abu Dhabi Tourism & Culture Authority (TCA) is aiming to more than double the economic impact of the meetings, incentives, conferencing and exhibitions (MICE) segment of the tourism market by 2020. While the Abu Dhabi National Exhibition Centre (ADNEC) is key to this, a growing number of hotels and other enterprises are also focused on catering to the segment, offering conference and exhibition space.

**NEW TARGETS:** According to a 2011 study commissioned by the TCA, the emirate hosted about 500,000 international and domestic business event visitors in 2010, each of which on average spent around Dh2420 ($658.72) during their business trip. While in total this amounts to approximately Dh1.2bn ($326.6m), the overall economic impact of business events is likely much greater, as this figure does not include indirect economic benefits. For example, while the direct impact includes items such as payments to hotels, indirect benefits take into account re-circulation of this money as hotel employees spend their wages in the emirate. According to an analysis within the 2011 study, the multiplier effect for Abu Dhabi business event visitors is about two, meaning that the total economic impact of business event visitors was around Dh2.4bn ($653.3m) in 2010.

In March 2012 the TCA announced that it was targeting a combined direct and indirect economic impact of MICE tourism of Dh5.1bn ($1.4bn) by 2020, equivalent to an annual growth rate of 7% between 2012 and 2020. Other goals include a four-fold increase in the number of events and doubling the number of MICE visitors. The TCA hopes that by 2015 the emirate will be positioned among the world's top 100 premier destinations for meetings.

By promoting Abu Dhabi as a premier location for MICE events, the tourism authority plans to attend 23 international road shows and exhibitions in 2012. They are also strongly positioned to attract major conventions and exhibitions given there are currently 20,000 hotel rooms available, according to public statements by Mubarak Al Nuaimi, the international promotions manager at the TCA.

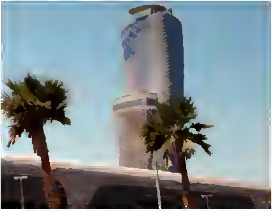
**TRACK RECORD:** While sufficient hotel capacity may be a significant factor in attracting new MICE business, perhaps even more important will be Abu Dhabi's recent success with the World Ophthalmology Congress, which was held in February 2012 and brought some 12,000 delegates to ADNEC. The economic impact of an event this size was significant. Al Nuaimi estimates that the combined direct and indirect positive economic benefit of the conference to the emirate amounted to Dh167.1m ($45.5m).

Other local enterprises also stood to gain from the influx of visitors, including retailers, restaurant owners and the emirate's tourist attractions. Indeed, the informational packets prepared for attendees highlighted two promotions – golfing and visiting the Ferrari World theme park. The ophthalmology congress was an important milestone for Abu Dhabi as it boosted credibility by demonstrating that the emirate could successfully host a major conference.

In the meantime, the UAE's capital has already been chosen for several big-ticket events, including the 2015 World Conference on Tobacco or Health, which was announced in April 2012. The congress will bring 3000 delegates to the emirate and is expected to generate a direct economic impact of Dh14m ($3.8m). The emirate beat out competing offers from Vancouver, Canada and Florence, Italy to earn the right to host the event, which was previously held in Washington, DC, Mumbai, India and Singapore. The successful bid, which was a collaborative effort by the TCA, the Emirates Cardiac Society and the Health Authority – Abu Dhabi, included a promise to provide financial assistance to delegates from low- and middle-income countries to ensure that they can attend.

Other major upcoming events include the World Route Development Forum in October 2012, for which 3500-4000 participants are expected, followed by the World Travel and Tourism Council Global Summit

The emirate is becoming an ever more desirable location for global conference events. The MICE segment has been targeted to yield Dh5.1bn ($1.4bn) by 2020



The MICE segment is benefitting from new facilities and increased government investment

Small and large MICE events are being catered for by modern facilities. The significant range of locations available offers room for expansion.

in April 2013, which will host more than 1000 leaders in the global tourism sector. Then in 2015, the Al Ain Wildlife Park and Resort will host a projected 1000 attendees for the World Association of Zoos & Aquariums Annual Convention, while the emirate will attract about 3000 delegates for the Asian Pacific Congress of Cardiologists, which will be held at ADNEC.

**MULTIPURPOSE FACILITY:** These large conferences may make the headlines, but ADNEC also caters to smaller engagements. Its facilities include 13 meeting rooms, with sizes ranging from 82 to 235 sq metres, in addition to 11 exhibition halls, each of which covers 3168-7920 sq metres. Larger spaces include two conferences halls with capacities of up to 1000 people, plus the International Convention Centre (ICC), which opened in 2012 and can hold up to 6000 people. ADNEC also has the Al Maared Hall, a 1500-sq-metre hall that can be used for wedding functions. With 73,000 sq metres of internal exhibition space, ADNEC is in fact one of the largest venues in the region. In addition, there are three hotels located on-site at ADNEC: Aloft Abu Dhabi, Hyatt Capital Gate and Premier Inn Abu Dhabi Capital Centre. As well as 89 hotel rooms, the Hyatt, which opened in December 2011, also has 15,000 sq metres of office space.

ADNEC, which is owned and operated by Abu Dhabi National Exhibition Company, a 100%-government owned entity established in 2005, is a relatively new facility, having opened in February 2007 in time for IDEX 2007, one of the world's largest annual defence exhibitions. The exhibition centre continues to host IDEX every year, in addition to other regular conferences such as the World Future Energy Summit and the Abu Dhabi International Petroleum Exhibition.

The number of events hosted by ADNEC has increased significantly in recent years, rising from 148 in 2010 to 231 in 2011, an increase of 56%. Growth in the centre's wedding business has been particularly strong, reaching close to 100 weddings in 2011, representing a more than 500% increase compared to 2009. Results for the first quarter of 2012 are promising as well, with ADNEC having hosted 64 events with more than 125,000 visitors. The three largest events of this period – the World Future Energy Summit, World Ophthalmology Congress and Tawdheef – combined accounted for more than 64,000 visitors.

**VARIETY OF VENUES:** Of course, ADNEC is not the only place to host a conference or corporate events in Abu Dhabi, with many of the emirate's hotels also including space for meetings or conferences. Two hotels that opened in 2011, the St Regis and the Park Hyatt – both located on Saadiyat Island – each have large conference venues. The former has the 1300-sq-metre Al Mudhaif ballroom that can hold up to 1000 guests. The latter offers a range of meeting venues, including 11 function rooms and the Alyazya ballroom, which can accommodate 550 people.

In addition to the hotel meetings spaces, event planners can also consider the Yas Marina Circuit. While perhaps best known for hosting the annual Formula 1 Etihad Airways Abu Dhabi Grand Prix, the circuit's facilities are used year-round to host corporate events, including conferences, exhibitions and team building exercises. Its largest venue is the Media Centre, covering a 1200-sq-metre area. Hosting mainly conferences and symposiums, it can seat 1140 guests or hold 2359 standing. In addition, there are also 12 Paddock Suites, each of which hold up to 400 people and can be used for presentations, product launches and dinners. Finally, the Yas Racing School includes boardrooms and offices, in addition to a larger restaurant area and two terraces. The Racing School also allows corporate clients to use its fleet of racing cars as part of team-building activities, with participants driving or riding on the F-1 track.

The aforementioned novelties help differentiate the facility from the many other MICE event locations available in the emirate, as do the nearby presence of the Yas Links golf course and the Ferrari World amusement park. Richard Cregan, the CEO of Abu Dhabi Motorsports Management, the operator of Yas Marina Circuit, told OBG, "MICE tourism holds significant potential for the emirate as clients now have many venues to choose from. We would like to capitalise on our positioning to gain more business from this market segment," he said.

The government of Abu Dhabi has invested heavily in creating a MICE segment, in part through its ownership of ADNEC but also through supporting the development of the emirate's hotels and infrastructure, as well as the islands of Yas and Saadiyat, which host important tourist facilities and attractions. In many ways, a focus on catering to business travellers makes economic sense, as these visitors spend on average more than their leisure counterparts and stay longer. Indeed, according to the TCA, of the emirate's international visitors, some 7% are motivated by MICE events, but these same individuals account for 21% of total international tourism spend. For this reason, an emphasis on developing and strengthening this segment seems well placed to continue in the near future.

Sheikh Sultan bin Zayed Al Nahyan, Chairman, Culture & Media Centre

# The past is the future

## OBG talks to Sheikh Sultan bin Zayed Al Nahyan, Representative of the President of UAE, and Chairman, Culture and Media Centre

**With rapid modernisation taking place what is being done to safeguard the UAE's culture?**
**SHEIKH SULTAN:** In the face of the challenges posed by globalisation and rapid development, the UAE's government is aiming to establish national identity and culture by preserving and propagating the Arabic language, promoting the culture, traditions and heritage of the UAE, embedding values of religious moderation, and promoting authentic Emirati principles. These goals cannot be achieved without the involvement of the government, civil institutions and community members, who can all contribute to preserving the unique traits of the UAE to serve economic and cultural development. Also, it is important to work in coordination with international organisations concerned with the protection of heritage and culture.

**What opportunities are there for the private sector to participate more actively in cultural tourism?**
**SHEIKH SULTAN:** Cultural tourism encompasses events, educational centres, exhibitions, international festivals, museums, libraries, and literature and science prizes, to name a few. The UAE is a regional actor specialising in many aspects of this kind of tourism. Public sector entities cannot be the sole providers of these products and services.

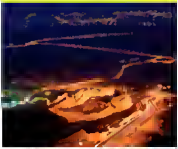
This means that the private sector can play a more active role and bring its know-how and business-oriented approach. Thus, we can witness contributions in culture and museum management, events and exhibitions management, educational tourism promotion, the development and promotion of historical and archaeological sites, and so on. Only through effective public-private partnership can a sustainable tourism strategy be successfully implemented.

**What can be done to "Arabise" digital content to preserve culture especially among young Arabs?**
**SHEIKH SULTAN:** Arabic content on the internet is very limited and remains disappointing in terms of both quantity and quality, despite the fact that internet use in the Arab world is growing faster than anywhere else. However, the internet is not and should not be the only means of cultural education for our young people. Promoting culture among the new generations requires effective educational strategies that encourage cultural exchange, openness and the use of modern technology. Increasing Arabic online content will promote scientific research in Arab countries. This can be partly achieved through a selective Arabisation process that translates useful know-how and brings quality knowledge to our youth. Moreover, we should also seek ways to protect intellectual property rights, as this will encourage Arabic educational and scientific organisations to publish their products and freely share their content with the public.

**How is the Culture and Media Centre working with governmental bodies to ensure a collective approach to the development of cultural tourism?**
**SHEIKH SULTAN:** The Centre is mindful of the benefits potential partnerships can generate. These include promoting and coordinating efforts towards the development of a product that advances cultural awareness among the people of the UAE and enhances the country's identity in the tourism sector.

Each entity has a part to play in the development of cultural tourism, whether in terms of safeguarding and developing the multiple cultural and heritage assets the UAE has to offer, or developing strategies that integrate the cultural component as an essential element in the government's tourism policy.

For instance, the Centre is very active in promoting events such as conferences, seminars, forums, festivals, fairs and exhibitions that contribute to enriching the cultural offering of Abu Dhabi and UAE. It also endeavours to preserve the country's literary and cultural heritage through publications – which are also addressed to the foreign reader – with regard to the history, traditions, people and literature of our nation.



The combination of history, arts and natural beauty is driving growth

# More than meets the eye

## Sector development efforts focus on promoting local cultural heritage

Tourism operators are increasingly focusing on the region's rich historical past. A number of sites have attained UNESCO World Heritage status.

While beaches and golf courses may attract some of Abu Dhabi's leisure tourists, the emirate's cultural offerings are also draw domestic and international visitors. Major cultural attractions include the historical city of Al Ain, which was granted UNESCO World Heritage Site status in 2011 and is home to the oldest museum in the UAE. In Abu Dhabi City, Saadiyat Island is being positioned as a centre for cultural activity and already features Manarat Al Saadiyat, a purpose-built visitor centre and museum, which will soon be joined by local branches of the Louvre and Guggenheim Museums.

**DESERT OASIS:** Located 160 km east of Abu Dhabi City, Al Ain *(see Al Ain Chapter)* shares an oasis with the neighbouring Omani city of Buraimi. Its historical remnants, varied wildlife and mountainous surroundings have long made it a tourism destination. The city is also the site of the Al Ain National Museum, which opened in 1971 and highlights the area's heritage and long history. Located in the same complex as the Sultan bin Zayed Fort, this attraction showcases items such as Bedouin jewellery and musical instruments. The museum's archaeological displays include artefacts dating back to the first millennium BCE and were drawn from Hili and Gern Bint Saud nearby.

Indeed, Hili is one of four cultural sites located in Al Ain that were added to UNESCO's World Heritage List in 2011, along with Hafit, Bidaa Bint Saud and the oases areas. According to UNESCO, these sites "constitute a serial property that testifies to sedentary human occupation of a desert region since the Neolithic period with vestiges of many pre historic cultures". Important historical remnants include circular stone tombs from 2500 BCE, a wide range of adobe constructions and one of the oldest examples of an *aflaj* irrigation system, dating back to the Iron Age.

At present, visitors can access parts of Hili via the Hili Archaeological Park, which will soon benefit from a government-backed project to update the ancient site. Plans are being drawn up for a new learning centre in which visitors will be able to learn about the earliest cultures that inhabited the modern-day UAE. The Al Ain National Museum will also be subject to a three year renewal project led by the government.

Other local attractions include the Al Ain Zoo, founded in 1968 and a centre of endangered species conservation that is well-known for its breeding of desert antelopes, particularly the Arabian oryx. The zoo is home to 4300 animals of 186 different species and is located at the centre of the Al Ain Wildlife Park & Resort, a development that will eventually cover more than 900 ha of land. The combination of natural wildlife, educational centres and themed desert safaris, will provide both a centre of learning and a leisure destination.

**NEW DRAW:** While the historical heartland of the emirate may be Al Ain, Saadiyat Island in Abu Dhabi City is being developed into a major cultural centre by the Tourism Development and Investment Company, a government owned entity. The 27-sq-km island will eventually house at least three new museums: the Louvre Abu Dhabi, the Guggenheim Abu Dhabi and the Zayed National Museum. The Louvre, scheduled to open in 2015, has been designed by Jean Nouvel, while architect Frank Gehry was responsible for the Guggenheim, expected to open in 2017. Meanwhile, the Zayed National Museum, which is set to launch in 2016, will tell the story of the founder of the UAE, Sheikh Zayed bin Sultan Al Nahyan, and explore the country's culture and history. Detailed architectural designs for all three facilities have been completed, and teams that will operate each institution are now undergoing training.

While Saadiyat has yet to fulfil its potential, it is already a well-established tourist destination, in part thanks to two new hotels located on the island – the St. Regis and Park Hyatt – that opened in late 2011. It is also home to the Manarat Al Saadiyat, which will continue attracting attention to the emirate by promoting the arrival and performance of international artists and exhibitions. The facility has two galleries open to visitors, and features an exhibit showing visitors a picture of the government's long term plans for the island.

# Media & Advertising

UAE net advertising spending to increase slightly in 2012
Popularity of social media continues to grow
Newspapers to remain the dominant advertising platform
Facilitating the development of Arabic media content





Government organisations account for 23% of advertising spend

# Plenty of potential

## Development across the sector, from print and radio to digital media, underscores the industry's potential

The government of Abu Dhabi has recognised the growth potential of local creative industries and is planning significant investment in the sector. According to data published in Abu Dhabi's development strategy, Economic Vision 2030, the output of the broadcasting, advertising, publishing and film industries in the Middle East and North Africa (MENA) region is expected to increase by roughly 25% annually.

**AD SPENDING:** While the size of Abu Dhabi's media market can be difficult to pinpoint due to a lack of official data on its contribution to GDP, a number of sources still provide helpful key indicators. Perhaps one of the most useful guides to understanding the media sector's size is annual advertising data. According to the "Arab Media Outlook", a report published by the Dubai Press Club (DPC) with the assistance of Deloitte, net advertising spending in the UAE is projected to reach $664.4m by the end of 2012. This represents a slight increase from 2011, when ad spending totalled $661.1m.

Advertising in the UAE has decreased since 2010, when the DPC estimated spending to total $742.4m. However, advertising is projected to increase substantially over the next three years, reaching $784m by the end of 2015. This is equal to a compound annual growth rate of 5.7% from 2012 estimates.

At around $366.6m, or 55% of total spending, the largest share of money spent on ads in 2011 went to newspapers, according to the DPC. Out-of-home media, including the cinema, made up the next largest share, at $87.7m, or about 13%, in 2011. Ad spend for radio and digital media in the UAE reached $76.7m and $52.2m, respectively, during the same period.

Although digital media is attracting significantly less advertising than newspapers and out-of-home media, the digital media segment has undergone dramatic growth over the past several years. In 2009 it accounted for $14.6m, or around 2%, of total ad spending. This figure jumped to almost 8% of advertising in 2011 and is projected to account for $156.8m, or 20% of advertising, in 2015. This represents a compound annual growth rate of 31.6% between 2011 and 2015, making digital media the fastest-growing segment within the UAE's media sector, according to the DPC.

Out-of-home media is projected to be the second-fastest-growing segment at a compound annual growth rate of 7.6% between 2011 and 2015. Despite lower advertising for the segment during 2011, out-of-home media is forecast to grow steadily over the near term, with money spent on ads rising to $117.6m by the end of 2015. By 2014 out-of-home media is expected to lose its place as the second-largest segment in terms of advertising, with digital media taking this position. However, at a predicted $117.6m in 2015, out-of-home media will still be substantially larger in 2015 than in 2009, when the segment accounted for $88.9m of ad spend, according to DPC figures.

**TRENDS IN ADVERTISING:** The Dubai-headquartered Pan Arab Research Centre (PARC) provides further details on the composition of the UAE's media sector. According to PARC data, government organisations accounted for 23% of advertising – the largest share of spending – during the first quarter of 2012. This represents a slight decrease of around 5% in advertising expenditures for the segment compared to the first quarter of 2011. At over 80%, the vast majority of advertising paid for by government organisations appeared in newspapers. Shopping malls and retail stores made up the next largest share of ad spend, accounting for almost 15% of total advertising during the first quarter of 2012. Newspapers absorbed a little more than 50% of shopping mall and retail store ad spend.

A number of sectors have significantly increased advertising in recent years, according to PARC figures. Most notably, the food, beverages and tobacco, in addition to the construction equipment and supply sectors, have expanded advertising expenditures by 43% and 33% respectively between the first quarter of 2011 and the first quarter of 2012. The overall impact of this growth on the country's media industry will not be dramatic due to the smaller size of these two areas

Although overall spending on advertising in the UAE has fallen from $742.4m in 2010, it is projected to increase significantly in the years ahead, reaching $784m by the end of 2015.

However, the hotel, travel and tourism industry, which represented almost a tenth of total advertising during the first quarter of 2012, increased ad spending by 23% between 2011 and 2012. This growth will likely have a larger impact on the country's media market.

**YOUNGER USERS:** Abu Dhabi's media sector is heavily influenced by the emirate's demographics. According to recent figures from the Statistics Centre – Abu Dhabi (SCAD), almost 2m people lived in the emirate in 2010. UAE nationals totalled over 430,000, representing roughly 22% of the emirate's residents. Though a relatively small segment of the population, UAE nationals enjoy high levels of disposable income.

Strikingly, over 73% of nationals living in Abu Dhabi are under the age of 30, according to SCAD data. This younger generation is tech-savvy and remains a critical population group for media companies. Media firms must, therefore, successfully provide the younger age group with content that is relevant to their experiences in order to remain competitive.

Increasing digital content is perhaps the most common strategy companies are employing to appeal to younger media consumers. Surging internet usage and high numbers of mobile phone application downloads in the UAE indicate that the young are not the only consumers interested in digital content.

"While print media is still huge in the MENA region, the future will be digital," said Ali Saif Al Neaimi, the CEO of United Printing and Publishing (UPP), an Abu Dhabi-based company. "More needs to be done to bring down the cost of digital media so that it is more attractive for the general market."

While the creation and circulation of digital content is still in the early stages, fixed and mobile broadband usage in the country is expected to continue to rise. The ability of digital media to attract both consumers and advertisers should follow as a result. The average internet user in the UAE will spend 2.3 hours per day online during 2012, according to DPC statistics. This figure is up slightly from 2009, when the average internet user spent 2.1 hours per day online. Males typically spend more time online than females, and users who spend over three hours online per day are often under the age of 35. News Group International (NGI), a news management firm based in Dubai, reports that current internet penetration in the UAE is approximately 70%.

**Most read newspapers in the UAE, 2012**

| Newspaper | % |
|---|---|
| *Gulf News* | 43 |
| *Al Khaleej* | 39.3 |
| *Al Emarat Al Youm* | 31.6 |
| *Khaleej Times* | 27.7 |
| *Al Ittihad* | 26.6 |
| *Al Bayan* | 23.5 |
| *The Times of India* | 9.2 |
| *Malayala Manorama* | 8.7 |
| *Akhbar Al Yawm* | 8.2 |
| *7 Days* | 7.7 |

SOURCE: DPC's "Arab Media Outlook 2011-15"

As 73% of the population owns a smartphone or a tablet, digital media is frequently accessed via mobiles

**SURFING THE WEB:** Obtaining information was the most popular online activity among UAE internet users in 2009. Indeed, almost 50% of time online was spent searching for information. This trend has since shifted, with social networking becoming the most popular use for the internet in 2012. The DPC reports that almost 32% of time online is now spent on social networking sites, compared to 24% in 2009. Obtaining information now consumes slightly less than 30% of internet activity in the UAE. Watching TV programmes and videos online has also become increasingly popular. Up from 3% in 2009, TV programmes and videos accounted for almost 6% of online activity in 2012.

Social media sites are increasingly popular in the UAE, with almost 80% of internet users in the country accessing them on a regular basis.

Although social media is growing worldwide, including in the Arab region, it has become particularly popular in the UAE. In terms of Facebook usage, the UAE is the regional leader. According to the DPC, 54% of the UAE's population uses Facebook, a full 16 percentage points above Qatar, the country with the second-highest penetration rate in the Arab region. The UAE is well above the regional average of 8% penetration. According to NGI, around 70% of regional Facebook users are between the age of 15 and 29.

**SOCIAL MEDIA:** While the data is not as recent, the Dubai School of Government's "Arab Social Media Report", ranked the UAE in early 2011 as having the 9th-highest Facebook penetration in the world. Penetration rates were only slightly higher in the US and the UK, which were ranked seventh and eighth, respectively. Facebook usage is even higher among internet users. The DPC reports that almost 80% of internet users in the UAE access social networking sites regularly.

In addition to Facebook, Twitter and Google+ also remain relatively popular in the UAE. Almost 20% of the population uses Google+ and a little more than 30% uses Twitter, according to DPC figures. The rise of Google+ has been particularly impressive due to its recent launch in 2011. Considering the successes of sites such as Facebook, Twitter and Google+, it is surprising to note a much lower LinkedIn penetration in

In recent years social networking has overtaken news and information as the most popular online activity among UAE internet users.

the country. At 2%, this figure might be higher if an Arabic version of LinkedIn were offered.

The rapid growth of social media in the UAE has not gone unnoticed among industry leaders and investors. Not only do social media tools give users a platform to engage with friends, the same websites allow businesses to connect with consumers. Social media provides firms with an inexpensive and pinpointed method of advertising. Accurate and up-to-date consumer behaviour research can also be easily and inexpensively carried out through the use of social media tools.

*The National*, an English-language daily news source based in Abu Dhabi, has seen significant benefits from social media. The newspaper uses a Facebook widget on its webpages, which serves as a convenient way for readers to share articles with their friends. Although sharing an article does not directly result in revenue, it typically drives more readers to *The National*'s webpages, and receiving more online readers has a direct impact on advertising. "The benefits of social media are substantial," said Fadi Al Tarzi, the chief operating officer at NGI. "Those companies that understand social media trends and, more importantly, recognise how to use social media to their advantage, will gain a significant edge over competitors," he recently told OBG.

Despite the benefits, not all businesses operating in the UAE have seriously addressed the opportunities available through social media. In fact, research released in December 2011 by DLA Piper, a global law firm, noted that only around 40% of companies with a UAE presence used social media tools. Furthermore, most companies using social media in the UAE were not deriving the full benefits of such efforts. These trends will likely shift, however, as social media continues to evolve and companies better understand the benefits and disadvantages of engagement.

**GOING MOBILE:** UAE residents are also accessing digital media through mobile phones. The DPC's "Arab Media Outlook" observes that 73% of the population owns a smartphone or a tablet, and of this demographic more than 75% download applications. Although the largest percentage of those who download applications categorise themselves as someone who does so "less often", almost 25% download applications once a week. Game applications, followed by utility and education remain the most popular among UAE smartphone users. The majority of mobile phone applications purchased in the country in 2012 cost more than $1, and a little more than 10% of free applications downloaded have been developed within the MENA region. Market research across the UAE, Saudi Arabia, Egypt and Morocco reveals that 80% of mobile phone users prefer using content in Arabic, with only 20% favouring English. A similar preference can be found among internet users in the UAE, with 85% of nationals favouring Arabic over English content, according to recent DPC data.

**ARABIC CONTENT:** Businesses have recognised the demand for Arabic digital content. Twitter launched an Arabic version of its website in March 2012, and Arabic Twitter is already more popular among UAE residents than its English-language version. Facebook has been available in Arabic since 2009. Both websites are part of a growing trend towards greater Arabic content online. NGI noted that Arabic digital content has grown from an estimated 0.2% of total online content in 2008 to around 2% at present. Thus, despite a sizeable increase over the past four years, online Arabic-language content has yet to match the proportion of Arabic speakers consuming digital media.

Efforts are under way to boost the production of Arabic-language content for broadcast and digital media

"Arabic online media content is quite minimal at the moment," said Al Neaimi. "We would like to see an increase in Arabic content, particularly from international media sources, as this will serve a gap in the market," Al Neaimi added.

One key player in the production of Arabic-language content is Abu Dhabi Media (ADM). A government-owned holding company, ADM is in the process of creating a strategy focused on Arabic content production. Although the firm is already a highly successful arm of the emirate's media sector, ADM believes that greater Arabic content production will increase the firm's competitiveness as most of ADM's audience speaks Arabic.

Abu Dhabi Media Investment Corporation (ADMIC) – a private investment firm owned by Sheikh Mansour bin Zayed Al Nahyan – recently expanded Arabic-language content when the firm formed a joint venture with the UK broadcasting firm BSkyB. Earlier in 2012 the two companies launched Sky News Arabia, a 24-hour news channel broadcasted in Arabic. Based in Abu Dhabi, the news network has an editorial staff of 400 based in 12 bureaux. The channel is accessible to 50m homes throughout the region, according to BSkyB figures. Viewers are also able to watch Sky News Arabia broadcasts online or via a smartphone or tablet.

**TELEVISION:** The launch of Sky News Arabia marks a significant development for not only Arabic content production but also for the emirate's burgeoning TV industry. A number of channels are broadcasted from Abu Dhabi, including Abu Dhabi Al Oula, ADM's leading general entertainment and free-to-air network; Abu Dhabi Sports TV, also free-to-air; and National Geographic

The use of mobile phones to access digital content and the popularity of social media sites are trends reshaping the sector, with these tying into efforts to expand the availability of Arabic-language content.

Abu Dhabi, an Arabic-language, free-to-air channel launched in mid-2009. Six of ADM's channels will soon be broadcast in HD through the satellite services of YahLive, a UAE-based satellite broadcast firm. ADM and YahLive signed a partnership agreement in February.

Almost 50% of the UAE's population watches between one and three hours of TV every day. UAE nationals typically watch more than this, with over 50% viewing between three and six hours of TV per day – more than any other nationality in the UAE. The DPC calculates that TV advertising will increase at a compound annual growth rate of 1.4% between 2011 and 2015.

The most popular programme genres viewed in the UAE are news and drama. While Arab expatriates watch news programmes more than any other, UAE nationals prefer drama. Accounting for roughly a tenth of TV genre popularity, sport broadcasts are becoming an increasingly key driver of pay-TV revenues.

Pay TV has increased over the past three years. In 2009, 52% of the UAE's population subscribed to pay TV, with the highest percentage – over 33% – subscribing to Etisalat's E-Vision. Movies were cited as the most common reason for subscription-based TV. In 2012 almost 70% of UAE residents pay for premium channels. Pehla, a pay-TV provider in the MENA region and in Europe, has become the most popular subscription service by a small margin, and sport has replaced movies as the most common reason for premium TV subscriptions, according to 2012 DPC statistics.

One challenge facing the UAE's television industry is a lack of reliable data on television viewership. Without a clear system for measuring ratings, advertising can be difficult to price, which discourages spending on advertisements. However, efforts are now under way to effectively address the problem.

In July 2012 the Emirates Media Measurement Company (EMMC), a joint venture between ADM, Etisalat, Rotana Media, Sharjah Media and the Dubai-based telecoms company du, initiated the roll-out of a TV audience measurement system, known as tview. The official launch took place in October 2012. According to *The National*, around 850 homes will take part in the ratings system. Each home will be equipped with a TV monitoring device known as a "people meter", and companies will be able to access minute-by-minute audience data from the previous day.

**KEEPING PRINT ALIVE:** Although digital media is becoming an increasingly popular platform among advertisers, print newspapers remain remarkably strong in the UAE. The DPC expects newspaper advertising to subside only slightly – at a compound annual growth rate of -1.7% – between 2011 and 2015. Just as importantly, the DPC predicts print newspapers to still be the dominant advertising platform in 2015, accounting for almost 44% of total ad spending.

Newspaper advertising is expected to decline slightly between 2011 and 2015, however, print newspapers are still predicted to be the leading advertising platform in 2015, with nearly 44% of total ad spending

The three most read newspapers in the UAE are *Gulf News*, *Khaleej Times* and *Al Emarat Al Youm*, respectively. An English-language daily, *Gulf News* was launched in 1978 and targets a non-Arab expatriate audience. *Khaleej Times* was also founded in 1978 and maintains a strong readership among Indian expatriates. An Arabic-language paper, *Al Emarat Al Youm* first began publication in 2005 and is owned by Dubai Media.

*The National* is another relatively recent entrant to the UAE's newspaper industry. Established in 2008 and owned by ADM, *The National* is supported by more than 250 journalists working out of a number of local and foreign bureaux. Although the newspaper does not anticipate gaining as large of a readership as *Gulf News* or *Khaleej Times*, *The National* reported a subscription base of over 35,000 in 2011, according to the paper's yearly advertising guide.

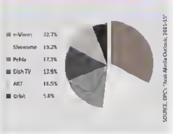
One of the more recent entrants into the print market is *Sport360°*, an English-language daily published by Gulf Sports Media and based in Abu Dhabi. Launched in 2010, *Sport360°* is the first English daily sports newspaper to be published in the UAE.

Similar to newspapers, magazines in the UAE will likely face a slight dip in advertising over the near term. The DPC forecasts advertising to fall by a compound annual growth rate of -3.1% between 2011 and 2015. Despite the expected decrease in ad spend, several high-profile titles, most notably MENA editions of *Good Housekeeping* and *Cosmopolitan*, entered the UAE market in 2011. Largely due to the global economic crisis, magazines focused on current affairs were the most commonly read among UAE residents in 2009. However, fashion has become the most popular magazine topic in the country, with celebrities and culture coming in second and third place, respectively. UAE subscription rates are around 40%, a figure high for the region, according to the DPC.

**PUBLISHING:** A robust printing and publishing industry provides further evidence that print media in the UAE has remained strong despite the surge in digital content. Indeed, the region's printing and publishing sector is expected to grow substantially over the next several years. "The Middle East and Africa are the future for the print industry," said UPP's Al Neaimi. "The population is large, growing and the majority of people in these markets still use print media to gather information." One notable opportunity for publishers in the region is the translation and publication of English, German and other foreign language books into Arabic.

One of the country's largest printing companies, Abu Dhabi-based UPP is positioning itself to meet the growing printing needs of the region. It aims to increase its

Pay-TV subscriptions in the UAE, 2009



competitiveness by moving towards security printing for ATM cards, driver's licences, fingerprints and SIM cards. "There is strong potential for security printing as the product value is very high and there are few players in the market," noted Al Neaimi. The firm anticipates a 35% profit on its investment in security printing equipment and technology, and plans to eventually expand its security printing arm to include passports.

Established in 2006 and owned by ADM, UPP also publishes more traditional products, such as magazines, books, directories and catalogues. *The Financial Times*, *National Geographic*, *The National* and *Zahrat Al Khaleej*, an ADM-owned women's magazine, are several of UPP's regional and international clients. In addition to its investments in security printing equipment, the firm has invested in pre-press, press and post-press equipment, as well as software upgrades.

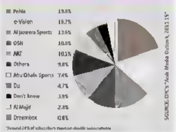
**ON THE AIRWAVES:** The UAE's radio market, as measured by advertising, has contracted moderately since 2009. Ad spend totalled around $81m that year and decreased to $76.7m in 2011, according to the DPC. However, the industry is expected to grow considerably over the near term, with advertising projected to reach over $94m in 2015. The number of stations in operation has increased from 24 in 2009 to 38 in 2011.

Radio Mirchi, a Hindi-language station, is one of the newest stations to enter the market. Launched by Bollywood actress Rani Mukherjee in February, Radio Mirchi broadcasts from Abu Dhabi through an agreement with ADM. The new station is owned by Entertainment Network India and aims to break even in two years.

**MEDIA FREE ZONE:** Abu Dhabi's media sector is now taking steps to become a regional top destination for content production, and the emirate's twofour54 is playing a leading role in this initiative. Launched in 2008, the government-owned media and entertainment free zone operates with a mission to facilitate the development of Arabic media content in Abu Dhabi.

Twofour54 provides services for regional content creators. Twofour54 tadreeb is a training academy with over 200 courses on offer ranging from video journalism and digital audio techniques to social media skills and writing for radio programmes. Courses can be customised to specific needs and are made available on demand. The academy aims to train new talent, as well as increase the skills of existing media professionals.

Pay-TV subscriptions in the UAE, 2012*





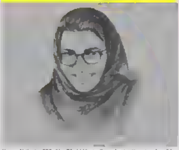
The region's printing and publishing sector is expected to expand considerably in the near future

Twofour54 tadreeb recently expanded with the development of a new animation academy. Set up through a partnership with Cartoon Network and the UK's Bolton University, the Cartoon Network Animation Academy is in its second year and trains students to graduate as work-ready employees. According to twofour54, around 55% of its animation students are from the UAE, with the remainder hailing from the region. The twofour54 Gaming Academy is another recent addition to tadreeb's line-up. The academy provides a 16-month, full-time course through a partnership with the French video game publisher Ubisoft and the SAE Institute, a privately owned Australian media college. Roughly 40% of the Gaming Academy's students are locals.

Abu Dhabi's media and entertainment free zone provides regional content creators a number of other services. Twofour54 ibtikar offers financial support to both individuals and companies operating in the Arab media sector. Twofour54 tawasol helps media professionals by providing office, residential and travel services, as well as by securing set-up needs through coordination with government officials. Content producers are also able to access production and post-production facilities, digital archiving and media asset management technology through twofour54 intaj.

**OUTLOOK:** Media companies are facing tremendous change as the world becomes more connected and increasingly demands digital content. Shifting trends have created challenges, as well as promising areas for new investment. Twofour54's gaming and animation academies are examples of the variety of opportunities emerging in the UAE's media sector. The demand for video games, particularly those with Arabic content, is growing, and there is an unfulfilled demand in the region for TV programming that targets children. "While the difficulties of adjusting to rapidly shifting trends in the media sector should not be overlooked, these changes are providing more opportunities for growth than closing doors," said Al Tarzi. "The media sector is only becoming more sophisticated and advanced."

Radio advertising declined from around $81m in 2009 to $76.7m in 2011. However, the industry is expected to benefit from growth going forward, with advertising projected to top $94m in 2015.



Noura Al Kaabi, CEO, Abu Dhabi Media Zone Authority – twofour54

# Show time

## OBG talks to Noura Al Kaabi, CEO, Abu Dhabi Media Zone Authority – twofour54

**How is Abu Dhabi positioned as a location for the development of media and entertainment content?**

**AL KAABI:** As with other places around the world, Arabs have grown up watching locally made media movies and other forms of entertainment. We enjoyed watching Arabic films and other types of entertainment, but the development of the local content, in terms of technology and the industry in general, is behind the times. We continue to consume this content, but don't enjoy it as much as that coming from Hollywood, Europe or even East Asia. Arabic content is not as dynamic as it used to be, whether that is in the diversity of genres, special effects, production capabilities or other aspects of the entertainment industry. We aren't saying that there isn't an industry, but that it needs development.

Prior to launching twofour54, we examined the international market in order to see how Abu Dhabi could be different. It was important to not only develop a media park which encourages international companies to set up in the emirate by offering business facilitation; we wanted to ensure that content was being created locally. The main driver around content creation is offering services such as production, studio development and all the associated human capital that is required. This will help facilitate content creation in Abu Dhabi which is then exported, rather than importing content from abroad. Since 2008, over 8000 content hours have been produced here, and the addition of Sky News Arabia will greatly boost the amount that is broadcasted.

**What steps are being taken to train human capital to support the burgeoning media industry?**

**AL KAABI:** The main services that will help our partners develop an industry here is the training academy. The training academy is a partnership between 12 institutes from around the world, and all the courses are related to media and entertainment creation. One example is the Cartoon Network's dedicated training academy. This is an important development which will ensure there is a programme to support the Arab animation industry and allow people to develop their own content. Similarly, the twofour54 gaming academy, in partnership with Ubisoft, will enable students to achieve the skills necessary to enter this fast-growing segment. At the same time future games will have more relevance to the region as more graduates from this programme enter the industry.

**To what extent will developing Arabic content help deliver a more tailored perspective and bridge the communication gap between East and West?**

**AL KAABI:** Bridging this gap revolves around the type and amount of content that is created. All our local media partners are creating content, whether it is a video game, short film or corporate video, the more content that is created, the better. Three years ago not much content was created in Abu Dhabi, but this is changing and will help people abroad to understand the culture and situation in the Arab world. Here at twofour54, we are focused on developing Arabic content to target the world's 340m Arabic speakers. It is important the content is in the Arabic language, but even more so that it is created in a place that is relevant to the language and has a local perspective.

**What role do international media agencies play in supporting these ambitions?**

**AL KAABI:** These international agencies help create awareness and also encourage more media companies to set up in Abu Dhabi; thankfully there are now many anchor partners established here. Currently, we aim to attract more film and TV production to Abu Dhabi. International production companies that film in the emirate will now receive a 30% cash back rebate on their qualifying spend during production. Attracting more filmmakers and production companies will increase their understanding of the local market, which will also help to change public perception. These companies will also help to grow the industry through talent exchange programmes and many other initiatives

# Tax

Most foreign entities are not subject to corporate tax
Property tax charged for obtaining business licences
Free trade zones offer a range of advantages
Certain exemptions on Customs duties for GCC trade

The UAE does not currently impose any capital gains tax

# Competitive costs

## Limited taxes make the emirate an attractive destination for investors

A federation of seven emirates (Abu Dhabi, Dubai Sharjah, Ajman, Ras Al Khaimah, Umm Al Quwain and Fujairah), the UAE was established in 1971. Each individual emirate exercises all its judicial and political powers except those that are assigned to the federation by the federal constitution or by agreements transferred to the federal government, which maintains exclusive jurisdiction in a number of areas, such as foreign affairs, defence health and education. The individual emirates retain exclusive jurisdiction in other matters, including those relating to municipal work and their natural resources.

**CORPORATE TAXATION:** There is currently no federal UAE taxation. Each of the individual emirates has issued corporate tax decrees, which theoretically apply to all businesses that have been established in the UAE. In practice, these laws have not been applied and taxes are currently only imposed at the emirate level on oil and gas companies that have production in the emirate as per specific government concession agreements (which are confidential), and on branches of foreign banks under specific tax decrees or regulations or fixed-in agreements with the rulers of the emirates in which the branches operate. Note that this is merely how the practice has evolved in the UAE. There is no general exemption in the law. Investors in the UAE should therefore be aware that the law may be more generally applied in the future and of the remote risk that it may be applied retroactively.

The UAE does not currently impose capital gains tax or any withholding tax. For taxpaying entities, capital gains are taxed as part of business profits. Presently, there is no branch profit tax except on branches of foreign banks.

**SALES & OTHER INDIRECT TAXES:** At present there is no value-added tax (VAT), indirect tax, sales tax, or goods and services tax levied in the UAE. While there has been some discussion of introducing a VAT system in the future, there has been no set timetable for its introduction and no draft has been released at this stage.

The UAE does not impose the following taxes at present:

- Dividend distribution tax,
- Fringe benefits tax,
- Wealth tax;
- Gift tax;
- Estate tax; or
- Minimum alternative tax.

There is currently no stamp duty levied in the UAE. However, there are various fixed transaction charges for the processing of visas, work permits, notarisation, vehicle registrations and other services from government departments.

**PAYROLL TAX & SOCIAL SECURITY:** There is no payroll tax at present, but if any UAE national or other GCC national is employed in the private sector, the employer must pay monthly contributions to a pension fund at the rate of 12.5% of the salary stated in the employment contract and determinable at the outset (i.e., basic salary and allowances). Additional contributions of 5% of such salary are due from the employee, which the employer deducts from the employee and remits to the pension fund. For UAE nationals working in Abu Dhabi, the employer's monthly contribution is 15% of the total salary and the employee's share is 5% of his total salary.

**PROPERTY TAX & REGISTRATION FEES:** In most of the emirates, property tax is payable by residential and commercial tenants by reference to the annual rent of residential property generally at a rate of 5% and for commercial property at a rate of 5-10%.

In Abu Dhabi a property tax is charged to obtain and renew business licences. In general, taxes are assessed at around 5-10% of the applicant's annual office rental and 5% of the annual rental of the residence of the manager whose name appears on the licence. In Abu Dhabi and Dubai, there is a sale registration fee of 1% of the value of the sale that

is imposed on the seller and a purchase registration fee of 1% of the value of the sale that is payable by the buyer of the property.

In Abu Dhabi, the total registration fee is capped at Dh1m ($272,000) per transaction. However, this rate can differ in other emirates.

**MUNICIPAL CHARGES:** Municipal taxes are imposed on hotel services. Service charge percentages vary among the emirates. A service charge of 5-10% is charged on food purchased in restaurants, which are licensed by the relevant tourism authorities, including those incorporated in hotels and private clubs. Hotels charge a 10-15% service charge per night on room rates. These charges are usually included in the customer's bill which the municipality will collect from hotels and restaurants.

**GCC IMPORT TAXES:** Under the regulations of the GCC (comprising the member states of the UAE, Saudi Arabia, Qatar, Oman, Kuwait and Bahrain), a unified Customs tariff of 5% of the cost, insurance and freight value applies to the taxable imports of all of the GCC member states from January 1, 2003. All existing taxes and duties on imports within the GCC member states before that date have been abolished. Tobacco and tobacco products are subject to a 100% Customs duty, and for alcohol the rate is 50%. However, in practice these rates may vary between the GCC countries.

Exemptions from Customs duties apply in the UAE and other GCC member states to various items including basic foodstuffs, raw materials for manufacturing industries, spare parts for civilian airlines, diplomatic and consular missions' imports, imports for military and internal security forces, personal effects and charitable organisations' imports.

An entity manufacturing goods in the UAE can export its goods to other GCC countries without duty if the manufacturing process involves at least a 40% value addition and the entity manufacturing the goods is at least 51% owned by GCC nationals.

**DOUBLE TAXATION TREATIES:** The UAE has more than 50 tax treaties in force, including treaties with Algeria, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia Herzegovina, Bulgaria, Canada, China, the Czech Republic, Egypt, Estonia, Finland, France, Georgia, Germany, India, Indonesia, Ireland, Italy, South Korea, Lebanon, Luxembourg, Malaysia, Malta, Mauritius, Morocco, Mozambique, Netherlands, New Zealand, Pakistan, the Philippines, Poland, Portugal, Romania, Seychelles, Singapore, Spain, Sri Lanka, Sudan, Syria, Tajikistan, Thailand, Tunisia, Turkey, Turkmenistan, Ukraine, Venezuela and Yemen.

**FOREIGN INVESTMENT INCENTIVES:** The UAE has one of the most dynamic economies in the Gulf region, with a booming oil industry, free trade zones (FTZs) permitting 100% foreign ownership, stock exchanges, industrial zones and an open banking system. To do business inside the UAE (and outside the free zones), a foreign business must have a UAE national sponsor, agent or distributor. Once chosen, the UAE sponsors, agents or distributors cannot be

Standard trade documentation, including certificates of origin, must be presented for imports and exports

replaced without their agreement. To establish a limited liability company in the UAE, it must be owned at least 51% by a UAE national or a company wholly owned by UAE nationals. Foreign ownership is restricted up to 49%. However, Ministerial Decision No. 194 in 2004 allows GCC nationals to set up limited liability companies without UAE-national participation. The UAE government is currently in the process of amending the UAE Federal Companies Law, which would permit higher foreign ownership in certain sectors and industries. Government tendering is conducted according to generally accepted international standards.

**INTELLECTUAL PROPERTY LAW:** When the federation of the UAE was established in 1971, it was decided that intellectual property (IP) rights had to be protected. This was further supported in 1992 by specific pieces of legislation. Since 1992 the UAE has grown into one of the leading countries in the protection of IP rights. In 2006, the Ministry of Economy issued a federal law to protect patents, industrial drawings and designs.

Not only does the UAE have a department dedicated to combating piracy and counterfeiting, it is also a member of the following treaties:

- World Intellectual Property Organisation (WIPO) Convention;
- Paris Convention;
- Berne Convention;
- Patent Cooperation Treaty;
- WIPO Copyright Treaty;
- Rome Convention; and
- WIPO Performances and Phonograms Treaty.

**IMPORTS:** Import licences are generally not required for the import of goods intended for personal use. Entities importing products intended for resale may only import products that relate to their licensed activity. Imports originating from GCC countries receive favourable treatment and are not subject to any Custom duty. All imported meat products require

Masdar City, one of Abu Dhabi's free trade zones, is a centre for green and renewable energy investment

a health certificate from the country of origin and a halal slaughter certificate issued by an approved Islamic centre in the country of origin.

**STATE EXPORT CONTROLS:** All goods exported or re-exported from the UAE must have the proper documentation. This documentation and issuing authorities can vary depending on the goods.

Standard trade documentation, including certificates of origin, bills of lading and various government/embassy attestations, must be presented for all imports and exports. Goods that are temporarily imported are granted admission for six months (renewable) with the suspension of the levied Customs duties. Temporary admission is granted in specific cases that are set out in the regulations.

**DOING BUSINESS:** Private enterprises are valued in the emirates and fresh business ideas are highly encouraged. When an investor – whether an Emirati or an expatriate – decides to pursue a business or industrial activity in the UAE, he or she may do so by either establishing a local entity or by joining with other individuals willing to combine effort, expertise and finance to establish a joint company. The Federal Law No. 8 of 1984, as amended, provides for the following seven different types of entities: general partnership, simple limited partnership, joint participation (venture); public joint stock company; private joint stock company; limited liability company; and partnership limited with shares. In addition, a branch of a local or foreign company may also be established in the UAE.

Any company that is not categorised as belonging to one of the above is viewed as null and void, in which case the signatories are jointly and severally liable for any obligation emanating thereby. In addition, each type of entity incorporated in the UAE must fulfil certain general terms and conditions.

**FREE TRADE ZONES:** Establishing a business entity in one of the UAE's many FTZs can be an attractive option for foreign investors. To date, free zones have been successful in attracting a large number of companies and foreign investment, as well as expanding net nonoil exports. The major advantages of a free zone are:

- 100% foreign ownership of the enterprise;
- No restriction on repatriation of capital and profits;
- No Customs duty for imports into the FTZs (but goods transported outside the free zone into other areas of the UAE will be subject to Customs duty);
- Guarantee of no corporate or personal income tax at the emirate level, generally for 50 years in Dubai, renewable for a similar period;
- Assistance with labour recruitment and support services, such as sponsorship and housing; and
- One-stop-shop licensing procedures.

Investors can either register a new company in the UAE in the form of a free zone establishment (FZE), or a free zone company (FZCo) or simply establish a branch or, in some instances, a representative office, of the existing parent company based within the UAE or abroad. An FZE is a limited liability entity that is owned by one shareholder, while an FZCo is a limited liability company that is owned by two or more shareholders. Both types of entities are governed by the rules and regulations of the free zone in which they are established.

Some of the FTZs in Abu Dhabi are:

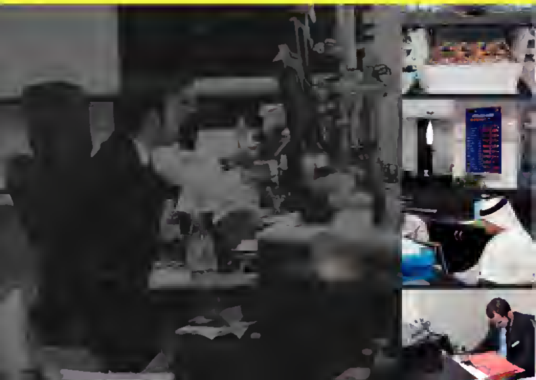
- TwoFour54: TwoFour54 is a free zone committed to providing a regional creative centre facilitating the development of Arabic media and entertainment content based in Abu Dhabi.
- Masdar City: Masdar City is planned to be a carbon-neutral city which will focus on green and renewable energy with an emphasis on research and development in clean energy and green products. Leading multinational companies in the cleantech sector, as well as small and medium-sized enterprises and entrepreneurial start-ups are expected to locate sales and marketing offices, demonstration centres, research and development labs and headquarters in the city.
- Abu Dhabi Airport Free Zone: The Abu Dhabi Airport Free Zone is being established by the Abu Dhabi Airports Company to provide customers a dynamic and thriving business environment with numerous benefits, including fast and efficient cargo clearance services and international freight forwarders and logistics services.

**PROMOTING FREE TRADE ARRANGEMENTS:** The GCC recently entered into a free trade agreement (FTA) with Singapore and is currently in the process of negotiating FTAs with several countries, unions and trade blocs. These include Japan, the EU, the Association of South-East Asian Nations and Australia.

OBG would like to thank *Ernst & Young* for their contribution to THE REPORT Abu Dhabi 2013

# Legal Framework

General rules for establishing a business in the emirate
The discussion about federal arbitration continues
Free zones with specific legal needs are coming on-line
Arbitration is popular as a means of resolving disputes
Foreign firms are able to list on the securities exchange



The securities exchange now allows foreign firms to list shares

# Inward investment

## How to set up shop and carry out business in the emirate

**LEGAL FRAMEWORK:** Abu Dhabi City is the capital of the UAE, which was founded in December 1971 as a federation between six of its seven constituent Emirates, namely: Abu Dhabi, Dubai, Sharjah, Ajman, Fujairah and Umm Al Quwain. The emirate of Ras Al Khaimah (RAK) joined the federation the following year. The UAE is governed by the UAE Constitution, which permits each Emirate to maintain an independent legislative body and judicial authority. Accordingly, there are both federal courts and local courts in each of the Emirates that can uphold the constitution.

The Abu Dhabi courts apply UAE federal law, which is enacted by the UAE federal legislative body, as well as the laws of the Emirate of Abu Dhabi. Although the legal procedures and laws applied by the courts of the individual emirates are similar, there are differences as a result of the federal system. It is therefore imperative to have regard for the local law, as well as the federal law. It should also be appreciated that the UAE is an Islamic state. This is laid out clearly in Article 7 of the constitution, which states that Islamic sharia law shall be the main source of legislation in the UAE. As a result, there are a number of differences between the emirate's commercial and legal concepts and those underlying, for example, code developed in the European commercial and legal environment.

**THE JUDICIARY:** The UAE is, essentially, a civil law jurisdiction that has its roots in the Egyptian, French and Roman legal systems. As a result, common law principles – such as adopting previous court judgments as binding legal precedents – are not generally recognised. When case reports are available, judgments delivered by higher courts do tend to be used as guidance by the lower courts. However, as there is no official system of case reporting, judges have a great deal of flexibility with regard to decision-making. Advocates are required to be locally qualified and they must prove that they have been appointed as their client's representative by submitting to the court an official power of attorney that has been notarised by a notary public.

The UAE operates two judicial systems, with federal courts established in some emirates, while local courts operate in others. The federal court structure operates on a three-tier basis, providing a Court of First Instance, a Court of Appeal and a Supreme Court. The Supreme Court hears final appeals, conducts judicial review proceedings and presides over disputes between the individual emirates. Whilst this structure applies to the majority of the emirates, the emirates of Dubai and Ras Al Khaimah have not joined the federal court system, and in 2007 the emirate of Abu Dhabi opted to leave the federal structure and return to a local judicial system. In common with most other jurisdictions, the courts are separated into those which rule on civil matters, and those which rule on criminal matters. Matters of personal status are dealt with separately, under sharia law, in the sharia courts.

**APPEALS:** After judgment has been delivered by the Court of First Instance in Abu Dhabi, a party has the right to appeal to the Civil Court of Appeal on factual and/or legal grounds within 30 days. It is also possible to introduce additional evidence to the Court of Appeal and/or request that additional witnesses be called to testify. Parties may only appeal on specific points of law to the Court of Cassation (the highest court in Abu Dhabi), which is usually composed of a panel five judges. An appeal to the Court of Cassation must be filed within 30 days of the date that the parties were notified of the judgment of the Court of Appeal.

All the decisions made by the Court of Cassation are final. The Court of Cassation does not only act as an appellate court, however. With respect to the decisions of lower courts, the Court of Cassation is able to supervise the lower courts in order to ensure they are applying and interpreting the law correctly.

The sharia courts, meanwhile, work alongside the civil and criminal courts. The Sharia Court is the Islamic court in the UAE and is primarily responsible for civil matters arising between Muslims. The court has exclusive jurisdiction to hear family disputes, for example,

As a result of the emirate's economic development and expansion, the Abu Dhabi Judicial Department has recently launched a number of "specialised" courts to oversee contract and construction disputes, medical liability and negligence cases, banking and finance issues, insurance claims and compensation demands in the emirate. Litigants involved in such cases should benefit from the focussed judicial expertise of these new courts which is also expected to improve their ability to resolve these particular disputes efficiently and expeditiously. Furthermore, as such construction and finance related cases are frequently complex in nature, in addition to often being time-consuming, their removal from the currently overrun system should be welcomed by the existing courts.

**JURISDICTION OF THE COURTS:** It is common for foreign parties contracting with Abu Dhabi entities to propose that foreign law should apply to their agreements and that foreign courts should have jurisdiction to hear any dispute arising from the resultant contractual relationship. The Abu Dhabi courts will only recognise a choice of foreign law, however, where they are satisfied that there is a sufficiently close relationship between the subject matter of the contract and the foreign law chosen, and where the clause is properly incorporated into the relevant contract and pleaded by the defendant at the first official hearing.

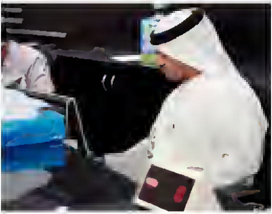
Additionally, a foreign jurisdiction clause will not be recognised by an Abu Dhabi court, where the court considers itself to have jurisdiction under the UAE rules of jurisdiction as provided for in Federal Law No. 11 of 1992 (the Law of Civil Procedure). This provides, for example, that the courts shall have jurisdiction to hear an action lodged against a foreign party who has no place of residence in the state if the action involves monies in the state or a contract to be performed in the state. Furthermore the Abu Dhabi courts will not honour any provision of foreign law, even where validly chosen, that is contrary to Islamic sharia, public order or morals, or to any law of or applicable in Abu Dhabi.

**ARBITRATION:** While Abu Dhabi has an established legal system and court structure that deals with both civil and criminal matters, arbitration has emerged as a popular means of alternative commercial dispute resolution. Indeed, arbitration is specifically recognised under the Law of Civil Procedure, which deals specifically with arbitration, including factors affecting the appointment of the arbitral tribunal and the actual validity of the arbitration award. While there is no restriction on the subject matter of arbitration, it may in practice be very difficult to arbitrate on, for example, employment and commercial agency matters. It is important to be aware that it will not be possible for any Abu Dhabi/UAE government department to enter into any agreement to arbitrate unless special consent is provided by the government. The Abu Dhabi Commercial Conciliation and Arbitration Centre offers arbitration services under its own rules, but arbitration is also conducted under the rules of bodies such as the International Chamber of Commerce, the London Court of International Arbitration and other international arbitration bodies.

Abu Dhabi courts, in certain specific circumstances, will recognise a foreign law in a contract dispute

While the ambition of arbitration is generally to remove the determination of a dispute from the courts, there are certain functions that the Abu Dhabi/UAE courts will need to perform in relation to arbitrations conducted in Abu Dhabi, such as making orders to assist the arbitral process, dealing with any challenges to an arbitral award once issued and, most importantly, ratifying the award so that it is capable of being enforced against the losing party's assets. The latter does, however, mean that a final resolution of a dispute cannot be achieved without the involvement of the UAE courts. Pursuant to UAE Federal Decree No. 43 of 2006, issued on June 13, 2006 the UAE acceded to the 1958 UN Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention), which is the leading commercial law treaty on the enforcement of foreign arbitral awards. As a result, arbitral awards issued in the UAE should enjoy automatic recognition across the other 143 member states to the convention, and therefore be enforced outside the UAE on a reciprocal basis without a re-examination of the facts behind the dispute. Being a member state further augments the country's efforts to attract foreign investors, for whom the ability to arbitrate (and have foreign arbitral awards recognised and enforced) is an important factor when considering doing business in this region. To further supplement the available dispute resolution procedures, the Ministry of Economy has drafted a federal Arbitration Law, which is still under discussion. The new law aims to ensure that the practical needs of arbitrating parties, their lawyers and arbitrators are met, and a number of provisions have been included with the aim of facilitating the procedure for enforcing both domestic and foreign arbitral awards. Under the new law, there will also be an arbitration office established in the Ministry of Economy to monitor international developments in arbitration.

**BUSINESS VEHICLES:** In other jurisdictions, the fastest and easiest way that an investor can establish a business in a foreign country is often by purchasing a "shelf"



With the use of local service agents, or "sponsors", foreign entities can establish a branch office

company. No such concept currently exists in the UAE but there are essentially four options available to the inward investor to carry on business in Abu Dhabi:

- Participation in a local corporate entity;
- Establishment of a branch or representative office;
- Establishment in a free zone; and
- Appointment of a commercial agent or distributor.

The scope and nature of the intended business relationship, and the type of proposed activities, will generally determine which vehicle is the most appropriate for the foreign investor. In Abu Dhabi there are seven types of commercial entities, as recognised by Federal Law 8 of 1984 (the Commercial Companies Law).

- Limited liability company;
- Private joint stock company;
- Public joint stock company;
- Joint participation;
- Partnership limited by shares;
- Simple limited partnership; and
- General partnership.

It is important to note that only UAE nationals are permitted to be partners in any of the last three entities. In determining which of the above commercial entities is most appropriate, an inward investor should consider, inter alia, the nature of its proposed activities (this will be relevant with regard to licensing requirements), how much control is desired to be maintained by the foreign investor, and the time and expense that is likely to be involved in setting up the chosen entity. In Abu Dhabi the most commonly used commercial entity for entities making an inward investment is the limited liability company (LLC).

**LLC:** The essential characteristics of a LLC are:

- There must be two to 50 partners (shareholders) and at least 51% of the shares must be held by UAE nationals or by firms wholly owned by nationals;
- Shares in an LLC may not be publicly traded and existing partners are given a "first option" to purchase shares being offered by another partner to a third party (in reality this only works to the advantage of the local shareholder as a foreign partner holding 49% may not increase his stake beyond that 49%).
- It is possible under the Commercial Companies Law for profits to be distributed other than in proportion to shareholdings, for example, where one of the parties provides particular know-how or assumes responsibility for the management of the LLC;
- There is no minimum share capital requirement. However, local authorities may still impose minimum capital requirements for specific types of business. The share capital must be fully paid up;
- Generally, the liability of a partner is limited to the extent of his holding, but additional liability may accrue (for example if a resolution contravening the Commercial Companies Law is passed);
- The LLC is not permitted to engage in certain types of financial business, in essence banking, insurance or investment for others;
- There is no board of directors as such, rather the partners are entitled to appoint a manager or a board of managers (up to five members) to administer the LLC;
- The manager or members of the board of managers may be partners and they can be appointed for a fixed or unlimited term. Unless restricted by the LLC's constitution, they have full power and authority to conduct the LLC's business;
- 10% of the LLC's net profits must be retained annually until half of the paid-up capital has accrued to a retention fund; and
- LLCs are licensed by local authorities and are often categorised as trading, contracting or service firms.

In recognition of the majority local ownership, LLCs are regarded for many purposes as local companies in Abu Dhabi. Certain fields of activity (e.g. those falling within what the authorities regard as "industrial") are open only to local companies. In certain sectors preferences operate in favour of local companies, and indeed some contracts are open only to local companies. These preferences make the LLC an attractive option for an investor whose business is in a particularly competitive sector of the market.

**NEW LEGISLATION:** A new Companies Law has been under discussion for some time, and in December 2011 it was reported that the draft new legislation had been approved by the UAE Council of Ministers. The law is now awaiting ratification by the Supreme Council. The final text of the new law has not been released by it. It is understood that it will include changes to the foreign shareholding limits. The current 49% restriction is often the main concern for an inward investor and so any change in the law which relaxes or removes this limitation should be warmly received by foreign businesses. It has been reported that, under the new law, foreigners may be able to own up to 100% of companies involved in certain sectors where there is a genuine demand for the particular services, where local investment is lacking and where additional foreign knowledge and expertise is required.

The draft law includes an enabling provision whereby foreign ownership in excess of 49% may be approved on a case by case basis. It is expected that key sectors

such as education, health care and the professions will likely be open to such approval.

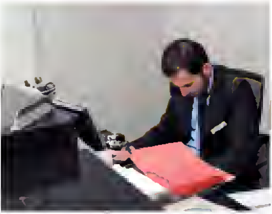
It is also reported that companies in some parts of the financial sector may also be allowed majority foreign ownership. Certain economic activities may only be carried out by UAE nationals, including services related to the hajj, commercial agents, various social services including special houses of care for the disabled, the establishment of publications, and carrying out activities as a recruitment agency.

While there has been no formal amendment to the Commercial Companies Law, it appears that GCC nationals (and companies wholly owned by GCC nationals) will be permitted to own local corporate entities without the need for equity participation on the part of a UAE national. However, where there is any kind of equity participation by a non-GCC national, then a minimum of 51% must be still held by UAE nationals.

**BRANCH OFFICES:** This option involves the establishment of an independently licensed branch office and it is the foreign company which is registered with the authorities. Although this arrangement is recognised in the Commercial Companies Law, it is not covered in any detail. To establish a branch, a foreign company must appoint a local service agent, colloquially referred to as a "sponsor". It is possible for sponsors to be active (for example, by providing promotional services), but more often than not the role is limited to assisting in and facilitating the required registration and administration formalities. Once a branch office is registered, it may carry on business in its own name. It is permitted, for example, to enter into contracts in its own name, sponsor and employ its own personnel and to obtain visas for them. Certain matters, however, in particular the import of goods, plant and equipment, may require the assistance of the sponsor.

Regardless of the level of activity employed, the sponsor is entitled to receive a fee. The amount of the fee and method by which it is to be calculated depends upon the type of business carried on by the branch. The fee is negotiable, however, for a foreign company licensed in the trading category, it is usual for the sponsor's remuneration to be calculated as a percentage of net profit, usually in the region of 25%. For a foreign company licensed as a contractor, the usual scale of fees is between 1% and 2% of gross contract values. A higher fee is likely to be sought by the sponsor in circumstances where additional services are provided (i.e. services beyond basic assistance with registration).

The fee rates are fairly clearly established and the authorities have been known to query rates which do not comply with the norm, although there is still considerable scope for negotiation of the same, increasingly including fixed fees. A sponsor should not play any role in the management of a branch and should not be involved in negotiating contracts on behalf of the branch office. It must be appreciated that branches are not regarded as local companies. As such, the local preferences mentioned above (in relation to LLCs) are not available to them and some branches can be specifically excluded from some fields of activity. The name of the branch must be that of its parent company with the addition of "Abu Dhabi".



Family businesses can retain as much as 70% of their shares when converting the firm to a public entity

Although a branch office is able to enter into contracts in its own right, it is nevertheless not considered to be separate from its parent company. The parent company is required, as part of the registration process, to guarantee the liabilities of the branch office. The termination of a sponsorship generally involves a negotiated settlement between the foreign company and the sponsor culminating in the payment of compensation. As of March 2011 it appears that there is a freeze on licensing new branches of foreign firms that carry out accounting and auditing services.

Representative offices, as an alternative, are established in a similar manner to branch offices, albeit that these are prevented from contracting in their own right and hence fulfil more of an advertising, or promotional function for the parent entity.

**PUBLIC & PRIVATE JOINT STOCK COMPANIES:** The key characteristics of a PJSC include having a minimum share capital of Dh10m ($2.72m), which is divided into equal negotiable shares. A shareholder is only liable to the extent of his shareholding. There must be a minimum of 10 founding members, and the board of directors must contain at least three (but no more than 12) members. Founding members must subscribe to 20-45% of the share capital. In 2007 the UAE government approved an amendment to the CCL that allows family businesses to retain as much as 70% (previously this figure stood at 45%) of their shares when converting their firms to public companies. The amendment means that family businesses can raise public money without losing control of their companies.

Under the amendment, family businesses are defined as enterprises fully owned by members of one family extending up to the fourth generation. A private joint stock company must have a minimum share capital of Dh2m ($544,400), and the nominal share value is to be paid up on incorporation. There must be a minimum of three founders and no more than 50 shareholders.

Media content creation and distribution for publishing, film, music and games is the goal of media zones

As with LLCs, if there is any equity held by a foreigner then UAE nationals (or companies wholly owned by UAE nationals) must hold at least 51% of the shares of a private joint stock company; but again, as with LLCs it appears the authorities will permit a private joint stock company to be wholly owned by GCC nationals (or companies wholly owned by GCC nationals), provided all other application and registration criteria are met. A foreign investor's choice to incorporate a joint stock company is likely to revolve around the proposed company's activities. For example, an entity wishing to engage in investment banking must be a joint stock company. Also private joint stock companies may invest funds on behalf of third parties, whereas LLCs are prohibited from doing so under the Commercial Companies Law. Investors may also wish to have flexibility regarding a future stock market listing, and the conversion process to a PJSC is much simpler for an existing private joint stock company than for an LLC.

**FREE ZONE ENTITIES:** While some of the UAE's best-known free zones are in Dubai, Abu Dhabi officially launched its first free zone, "twofour54", named after the global coordinates of the city of Abu Dhabi, on October 12, 2008. The benefits of establishing a presence in a free zone are, as a generalisation:

- Unlike companies or branch offices established under the CCL, free zones permit 100% foreign ownership. This obviates the need for overseas companies to have a local sponsor, enabling them to retain full control of their investments and returns;
- Unrestricted repatriation of profits and capital; and
- A number of free zones provide renewable exemptions from corporate taxation for up to 50 years.

The procedure for setting up a presence, obtaining a business licence and procuring visas for a workforce is generally quicker and more streamlined. Each free zone caters to the specific needs of a particular industry. In many instances a free zone presence entitles a firm to carry on business only within that free zone, so the option requires very careful consideration.

**IN THE ZONE:** The twofour54 free zone was established pursuant to Law No. 12 of 2007 (concerning the establishment of the Abu Dhabi Media Zone Authority). Film, television, broadcasting, music, digital media, gaming and publishing businesses can create international-standard content in a creative, purpose-built environment. Twofour54 has already licensed more than 60 firms, among which are some of the world's most renowned content creation companies.

Masdar City will be an integrated "green community". Masdar City has been designed to be the pinnacle of sustainable urban development and upon completion will be the world's first carbon neutral, zero waste city. It is the first special economic zone to be established for clean technology and renewable energy companies. Masdar City is a purpose-built city focusing on academic research, development and operations for companies, entrepreneurs and financiers based in renewable energy and related technologies. The city's latest timeline is to be fully operational by 2020.

The Khalifa Port and Industrial Zone (KPIZ) is situated between Abu Dhabi and Jebel Ali. It is contemplated that KPIZ will be similar to the Jebel Ali Free Zone in that it is expected to offer 100% foreign ownership, no duties on imports/exports and is likely to have guaranteed zero tax going forward. When fully operational KPIZ will include a container and industrial port, along with more than 100 sq km of special economic and free zone space dedicated to logistics, industrial, commercial, educational and residential facilities. KPIZ is aiming to attract companies requiring a lot of land area. The port is under construction and is expected to be operational by late-2012 and completed in 2030.

The Higher Corporation for Specialised Economic Zones (known as ZonesCorp) was established in 2004 to provide integrated infrastructure, environment and professional services in Abu Dhabi through the creation of specialised economic zones focusing on the industrial sector. ZonesCorp promotes investment by offering tax exemptions; duty-free access to GCC countries, as well as to signatory countries of the Greater Arab Free Trade Agreement; prompt issuance of government permits, licences and Customs exemptions; free repatriation of profit and capital; and some duty-free imports.

Several free trade zones are planned in Abu Dhabi, the Abu Dhabi Airport Free Zone, Khalifa Port and Industrial Zone, and the Industrial City of Abu Dhabi. The Abu Dhabi Airport Free Zone (ADAFZ) is to be established by Skycity LLC, a subsidiary of the Abu Dhabi Airports Company. Situated within the boundaries of the capital city's international airport, ADAFZ will allow a broad spectrum of business sectors to operate, subject to compliance with health and environmental standards. It is proposed that, in line with other free zones in the UAE, the benefits of operating within ADAFZ will include 100% foreign ownership, 100% corporate tax exemption, 100% import and export exemption, and one-stop administration services. In addition to these, ADAFZ will offer fast and efficient cargo clearance services, international freight forwarding and logistics services, and on-site Customs inspection. Registration should only

take two to five working days after submission of all documents and settlement of required payments (e.g. for lease of rented facilities).

**COMMERCIAL AGENCY:** Perhaps the simplest way for a foreign company to carry on business within Abu Dhabi is by the appointment of a registered trade agent. This type of appointment is regulated by Federal Law No. 18 of 1981, as amended, regarding commercial agencies, known as the Trade Agencies Law (TAL). No real distinction is made between a commercial representative and a distributor, so the expression "agent" is interpreted to apply equally to a main distributor and to a representative, as well as to a commercial "agent". The expression "agent" is therefore used below in this broader sense. The trade agency is primarily intended for foreign companies wishing simply to sell their products or services in the UAE without active local operations of their own. The trade agency route may initially be cheaper for foreign companies wishing to test the market because it avoids the need to establish a physical presence in the emirate, thereby avoiding the need to procure any separate registrations because the business will be carried on under the agent's trade licence.

Other than any initial costs, the principal's only recurring expense will be the commission payable to the trade agent (the official agent is entitled to commission on all transactions in its territory, even if those transactions have not been concluded as a result of the efforts or involvement of the agent). A foreign principal may appoint an official agent for the UAE as a whole, or appoint agents for each emirate. In either case the agent's appointment is generally an exclusive one.

Parties are not free to contract out of the TAL, and its requirements are locally regarded as overriding conflicting principles of foreign law, notwithstanding any agreement to the contrary. The registered agent has the right to prevent goods which bear the relevant trademark from being brought through Customs into Abu Dhabi. This can be of benefit to the principal, but it also provides the agent with considerable power to restrict and prevent trade in the Emirate in the event of a dispute. Recent amendments to the TAL prevent a foreign principal from terminating or refusing to renew the agency unless they can show "a material reason justifying its termination or nonrenewal". If the principal is unable to display a "material reason" justifying the termination or non-renewal the principal may well be required to pay compensation to the agent on termination of the agreement. In the event of a dispute, either the principal or the agent may approach the committee appointed for dispute resolution.

An agency agreement cannot be re-entered in the Commercial Agents Register in the name of another agent unless the previous agency agreement has expired, the parties have mutually agreed to abrogate it or a court verdict has been issued terminating the agreement. If the agreement's termination prejudices either party, the aggrieved party may claim compensation. Goods subject to a registered agency agreement may not be imported except via the registered agent. If such goods are brought in by another agent, they

Reconcerving of ports as integrated free zones should help facilitate imports, exports and re-exports

may be seized and can only be released with the approval of the Ministry of Economy or the registered agent.

In addition, the seizure will remain in force pending the settlement of any dispute. This will not apply to certain "exempt" goods, whose trading is licensed by virtue of a Cabinet resolution, and which may therefore be traded and imported into the UAE regardless of the existence of a registered agency. That Cabinet resolution contains a list of foodstuffs which the Cabinet has decided, may be unconditionally imported into the UAE. The Ministry is to strike the agencies pertaining to such materials from the Commercial Agencies Register.

**ABU DHABI EXCHANGE:** As of August 2012 the ADX had 67 listed companies with a market capitalisation of some $62bn. The ADX has different listing conditions for locally incorporated PJSCs and for foreign companies wishing to list their respective securities on the exchange. For a local PJSC to list on the ADX, it must have been incorporated for at least two years with financial statements issued for each year. It must have a paid-up capital of at least Dh20m ($5.44m), and this amount must account for at least 50% of the total capital. All shares must be equal, and the firm must have held an ordinary general meeting at least once a year.

For a foreign company wishing to list its securities on the ADX, its capital must exceed Dh40m ($10.89m) and it must have at least 100 shareholders. The company's net assets must be at least 20% of its paid-up capital, and it should have realised net profits at a minimum of 5% of the paid-up capital during the two years prior to application. The company must appoint a local representative in the UAE to handle matters related to share registry. There are rules regarding the ongoing compliance for companies listed on the ADX. These include, inter alia, disseminating certain financial information to shareholders, the general public and to the ADX, giving notice of changes to previously published information; disclosing to members (and giving notice to the ADX of) certain price sensitive information; and giving notice of any changes to the board of directors


Flats and buildings can be owned by foreigners in the investment zones, but they cannot own the land

or executive management. Listing is not restricted to equity securities of public companies but includes the listing of Islamic bonds and debt securities. The National Bank of Abu Dhabi listed the country's first publicly traded convertible bond (notes) on the ADX in 2006.

**CORPORATE GOVERNANCE:** In April 2007 the Securities and Commodities Authority (SCA) issued the Corporate Governance Code for Joint Stock Companies and Institutional Discipline Criteria (the Code). The Code contained binding new corporate governance rules to be applied by listed companies. These companies had a three-year window within which to comply with the Code. In 2009 the Code was superseded by a Ministerial Resolution (the Resolution).

The Resolution does not apply to private joint stock companies or entities wholly owned by the federal or local government, but requires all other companies whose securities are listed on a UAE on-shore stock exchange (i.e. the ADX or the Dubai Financial Market) to adopt good corporate governance rules to create an internal control system, to adopt principles of quality corporate governance, and establish an effective framework for the protection of shareholder rights, the strengthening of transparency within the company and specifying the duties of the board.

The SCA also issued a circular ancillary to the Resolution, regarding corporate governance, which introduces requirements for listed companies. Listed firms must submit an annual corporate governance report to the SCA that includes the following:

- Requirements and principles of completion of a corporate governance system and the approach to their application;
- Any violations committed by the firm in the financial year, reflecting their causes as well as the method of remedy and avoidance of future occurrences; and
- Method of formation of the board in terms of member classes, term of membership, means of remuneration fixation, as well as the remuneration of the general manager, executive director or CEO. This corporate governance report must be available to all shareholders in sufficient time prior to the date of the general meeting.

There must be a balance on the board between executive, non-executive and independent directors (with a majority of the board being non-executives and one-third being independent). The board must establish two permanent committees: an audit committee (which must consist of at least three non-executive directors, the majority of whom must be independent and must include a financial and accounting expert) and a nomination and remuneration committee. It must also perform an annual review to ensure efficiency, disclosing its findings in an annual governance report.

**PROPERTY:** Under Abu Dhabi's property ownership laws (Law No. 19 of 2005 as amended by Law No. 2 of 2007), UAE nationals (and legal entities wholly owned by them) can own freehold property anywhere within the emirate. GCC nationals (and legal entities wholly owned by them) may also own freehold property, but only within specifically designated investment zones such as Al Raha Beach, Al Reem Island, Lulu Island and Al Reef Villas. GCC nationals and non-GCC nationals have the right to own flats in buildings in the investment zones but not the rights to the actual underlying land. GCC and foreign nationals are also entitled to the right of usufruct for up to 99 years (this is similar to a lease, being the right to use and exploit property belonging to another) and the right of *musataha* for a maximum term of 50 years (being the right to build and develop on land belonging to another), with both these rights being renewable by mutual consent.

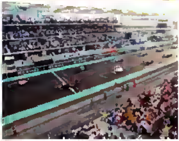
**LABOUR LAW:** Labour matters in Abu Dhabi are governed by Federal Law No. 8 of 1980, which covers all aspects of the employment relationship, including those relating to labour contracts, working hours, wages, holiday, work safety, discipline, terminating employment contracts (although there are no specific provisions dealing with redundancy), end of service benefits, compensation for occupational diseases, labour inspections and penalties. The law applies to all employees in the UAE – nationals and expatriates – but certain categories of individuals are exempt from the law, for example, those employed by public bodies. The Labour Law sets out the minimum standard of protection which must be provided to employees in the UAE. Thus if the provisions in a contract are less favourable than those in the Labour Law, the former will not be enforceable.

Foreign nationals working in Abu Dhabi must hold work and residence permits. A work permit will be issued on the basis of (among other matters) a contract of employment with a locally licensed entity in local form issued by the Ministry of Labour covering the basic provisions of the Labour Law. In most instances, expatriate employees will also be issued with significantly more detailed employment contracts and, to the extent that employee has greater benefits under the long-form contract, then the latter will prevail.

OBG would like to thank *Reed Smith* for their contribution to THE REPORT Abu Dhabi 2013

# The Guide

Exciting options for entertainment on Yas Island
A look at some of the leading local hotels and resorts
Listings for government offices, embassies and services
Practical advice for first-time visitors to the emirate



Visitors can experience the track from a driver's perspective

# Race to the finish

## Yas Island offers a number of entertainment options

Located a 30-minute drive from downtown Abu Dhabi City, Yas Island hosts several of the emirate's major touristic attractions, including the Yas Marina Circuit, Ferrari World and the Yas Waterworld water park. These options offer a variety of activities and experiences designed to entertain everyone from international business travellers to families on holiday.

**ADRENALINE RUSH:** While the Yas Marina Circuit is perhaps best known for hosting the Formula 1 Etihad Airways Abu Dhabi Grand Prix every November, this motorsports and entertainment complex is in fact open year-round. Much of the activity outside of the Grand Prix is centred on the Yas Racing School, a building that stands directly on the track. There, visitors can take part in passenger and driver experiences that offer the thrill of racing on a real F-1 track. Indeed, this is not an activity for the faint of heart.

Passenger experiences – open to anyone over the age of 14, no driving skills required – include a ride in one of Yas Marina Circuit's two Mercedes SL63 AMGs, which served as the safety cars in the inaugural Grand Prix in November 2009. The visitor is fitted out in a racing helmet and strapped into the car by the racing school's staff, while a professional F1 driver takes the wheel. The ride, which in total includes three laps around the track, begins slowly but gathers pace, hitting 250 km/hour on the final back straight. But the real excitement may well be the twists and turns the course offers, during which the passenger may find his stomach moving in one direction while the car moves in the other.

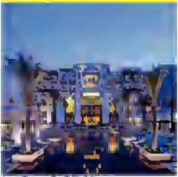
Besides the adrenaline rush, perhaps the most enjoyable part of the experience is a view of the track that is normally reserved for the professionals. The beauty of the course becomes apparent when seen from the tarmac, as the car travels alongside the marina and under the glass-and-steel bridge that connects the two towers of the Yas Viceroy Hotel before passing through the main grandstand area.

Passenger experiences are also available for other vehicles, including the Aston Martin GT4 and an F1 two-seater. The latter are single-seater racing cars that have been especially converted for use by two people. For those more inclined to take the wheel, driver experiences are an option, with several models of car offered.

**FOR THE KIDS:** Adjacent to the Racing School is the Yas KartZone, a lively destination for children and adults alike, offering an 800-metre go-kart track. The go karts reach speeds of up to 70 km per hour, offering an exciting introduction to motorsports in a safe and fun atmosphere. For groups of 15 or more, the KartZone also provides packages, which begin with a practice session, followed by a qualifying sprint. The fastest drivers then move on to a final race. While this may sound highly competitive, in fact beginners are welcome, and it is easy to pick up the necessary skills.

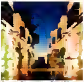
**A WALK IN THE PARK:** Meanwhile, Ferrari World Abu Dhabi, the world's largest indoor amusement park, provides another suitable entertainment option for families who visit Yas Island. It is already home to the world's fastest rollercoaster, and additional rides continue to be introduced. New offerings that opened in 2012 include Viaggio in Italia, which offers an aerial tour of Italy's landscape and famous sites. Guests sit in seats that are lifted 14.5 metres into the air, allowing them to be immersed in scenes that are projected onto a dome-shaped screen. Another family-friendly destination is Yas Waterworld Abu Dhabi, located next to Ferrari World. Set to open in the fourth quarter of 2012, the 15-ha water park will highlight the emirate's pearl diving heritage with 43 rides, slides and attractions.

Yas Island is a short drive from Abu Dhabi City, but for visitors who wish to spend the night, there are several hotel options, including the Yas Viceroy Hotel, which literally straddles the F1 track. The Viceroy, designed by New York-based architects Asymptote Architecture, is hard to miss thanks to its "gridshell" – a steel net-like structure with more than 5000 glass panels that is draped over hotel's two towers. This glass grid lights up at night with changing colours, offering a spectacle that captures the changing nature of Yas Island.



Eastern Mangroves Hotel & Spa by Anantara

# A good night's rest



One to One Hotel - The Village

Premier Inn Abu Dhabi Capital Centre

Al Manzel Hotel Apartments

## ABU DHABI CITY

**EASTERN MANGROVES HOTEL & SPA BY ANANTARA**
T: +971 2 656 1000
F: +971 2 656 1009
easternmangroves@anantara.com

**Rooms:** 222 rooms and suites including the Royal Mangroves Residence with private entrance and rooftop pool, Kasara club floors and dedicated lounge
**Business & Conference Facilities:** Business centre with high-speed wireless internet, PCs and printers. Meeting and event facilities with rooms and ballroom with capacity from 10 to 500 people.
**Health & Leisure Facilities:** Infinity swimming pool facing the mangroves, Anantara Spa including traditional Turkish hammam. Workout room includes a separate ladies' only gym, hair and nail salon.
**Guest Services:** 24-hour concierge, 24-hour room service, currency exchange, meeting services, travel arrangements, high-speed wireless internet access in all rooms
**Wining & Dining:** Ingredients (all day dining with a selection of international cuisine), Pachaylen (authentic Thai cuisine), Impressions (rooftop bar and lounge) and the Pool Deck

**ONE TO ONE HOTEL – THE VILLAGE**
Al Salam Street
PO Box 128967
T: +971 2 4952 000
F: +971 2 4952 001
www.onetoonehotels.com/thevillage

**Rooms:** 127 rooms located within 18 different blocks scattered around the gardens
**Business & Conference Facilities:** Business centre, fax, email, free wireless internet access.
**Health & Leisure Facilities:** Sauna fitness centre, massage, jacuzzi, outdoor swimming pool, kids' garden.
**Guest Services:** Room service, business centre, babysitting services, laundry, dry cleaning, barber/beauty shop, currency exchange, souvenirs/gift shop and car hire
**Dining:** The Village Club, 18 OZ. Resto, Sennara, T-Garden, Wokcano and Cubes (events lounge)

**PREMIER INN ABU DHABI CAPITAL CENTRE**
T: +971 2 813 1999
F: +971 2 650 0979
Reservations: adcc@mena.premierinn.com
www.premierinn.ae

**Location & Rooms:** 242 rooms located near the Abu Dhabi National Exhibition Centre.
**Business & Conference Facilities:** 24-hour business centre, 2 meeting rooms with the latest audio-visual aids and free Wi-Fi internet access.
**Guest Services:** 24-hour reception, safety box, free valet service, free covered parking, laundry, free shuttle service to shopping malls, open beach and Abu Dhabi touristic attractions
**Health & Leisure Facilities:** Temperature-controlled outdoor swimming pool, gym room.
**Wining & Dining:** Nuevo Restaurant (all day dining), Lounge One (sports bar) and Costa Coffee

**AL MANZEL HOTEL APARTMENTS**
T: +971 2 644 8000
F: +971 2 644 4422
info@Almanzel-hotelapartments.com
www.Almanzel-hotelapartments.com

**Rooms:** 216 suites (56 deluxe studio suites, 112 deluxe one-bedroom suites, 17 executive studio suites and 31 executive one-bedroom suites)
**Business & Conference Facilities:** Two state-of-the-art conference rooms for 10-40 persons, high-speed wireless and business centre facilities.
**Guest Services:** 216 luxurious suites with fully equipped kitchenette, microwave oven, washing machine and

dryer, complementary in-suite equipment for making tea and coffee, wide LCD multi-channel satellite TV and radio, direct dialling telephone with voice mail, in room safety deposit box, hair dryer, iron centre, executive floors with executive privileges and amenities, foreign currency exchange, airport pick-up and drop-off service, housekeeping and same-day laundry and dry cleaning service, valet parking assistance.
Health & Leisure Facilities: Fully equipped gym, rooftop temperature-controlled swimming pool, sauna and jacuzzi facilities.
Wining & Dining: Al Iwan Restaurant (all day), Al Multaqa (café and terrace), Blue Moon (poolside), 24 hour room service.

**EMIRATES PALACE**
T. +971 2 690 9000
F. +971 2 690 9999
info.emiratespalace@kempinski.com
www.emiratespalace.com

Rooms: 302 rooms, 40 suites, 4 presidential suites and 16 palace suites divisible into 48 individual suites.
Business & Conference Facilities: High speed internet, fax, printing, secretarial services audio-visual equipment, 1200-person capacity auditorium, 2800-person capacity ballroom, 48 meeting rooms and 10,000-sq-matra outdoor function space.
Health & Leisure Facilities: Anantara Spa for body treatments, Moroccan hammam, 1.3-km private beach, 2 pools, 2 fitness centres, West Wing adventure pools, waterslides, waterfalls and a lazy river.
Guest Services: Airport shuttle, laundry and dry-cleaning, babysitting, barber/beauty salon, currency exchange, valet parking, concierge, postal services, courier, safe deposit boxes, services for the disabled, shopping arcade, jeweller and florist.
Wining & Dining: Cascades (poolside), Mazzaluna (Italian), Sayad (seafood), Las Brisas (poolside salads and grills), Le Vendôme Brasserie (international), Al Majlis and Caviar Bar (aperitif), Havana Club (cognac/cigar bar), Embassy Club, Café, Anar (Persian), Diwan l'Auberge (Lebanese), Barbeque Al Qasr (al fresco), and the Palace Ceremony (private dining). 24-hour room service.


Emirates Palace

**LIWA EXECUTIVE SUITES**
T: +971 2 644 3344
F: +971 2 644 5757
info@coral-liwasuites.com
www.coral-liwasuites.com

Rooms: 54 units with access to hotel services, featuring living, sleeping and working areas, as well as audio visual equipment. Non-smoking rooms, rooms/facilities for disabled guests are available.
Business & Conference Facilities: Up to 70 sq matres of flexible meeting space, including Liwan boardroom, IT assistance and audio-visual aids.
Guest Services: Room service, 24-hour front desk, newspapers, elevator, and safety deposit box.
Health & Leisure Facilities: Fitness centre, outdoor pool, sauna.
Wining & Dining: All-day dining at Mood, offering a range of buffets and grills, as well as à la carte options. Rumours Café offers coffees, teas and fresh juices, as well as pastries, sweets and other snacks.


Liwa Executive Suites

**ECLIPSE BOUTIQUE SUITES**
T. +971 2 626 8800
F: +971 2 624 4161
reservations@eclipsesuites.com
www.eclipsesuites.com

Rooms: 36 deluxe one-bedroom suites, 18 executive one-bedroom suites and 36 grand two-bedroom suites. Each room has a 32-inch TV, equipment for making tea and coffee, and fully equipped kitchen.
Guest Services: Free internet, business centre, valet parking, laundry and dry cleaning service, foreign currency exchange, safe deposit boxes, babysitting.
Health & Leisure Facilities: Health club Zen2u spa.
Dining: Taste of Korea.


Eclipse Boutique Suites


Phoenix Hotel Apartments


Mafraq Hotel Abu Dhabi


Mourouj Hotel Apartments

**PHOENIX HOTEL APARTMENTS**
T: +971 2 643 3322
F: +971 2 446 8744
sales@phoenixplazauae.com
www.phoenixplazauae.com

**Rooms:** 63 studio suites and 9 executive one-bedroom suites. Each room has a 32-inch TV, fully equipped kitchenette and washing machine.
**Guest Services:** Internet, business centre and secretarial services, valet parking, laundry and dry cleaning equipment for making tea and coffee.
**Health & Leisure Facilities:** Health club and massage centre
**Dining:** Coffee shop

**IVORY HOTEL APARTMENTS**
T: +971 2 613 8500
F: +971 2 644 6373
sales@ivoryhotelapts.ae
www.ivoryhotelapts.ae

**Rooms:** 60 one-bedroom suites and 35 two-bedroom suites. Each room has a 32-inch TV, equipment for making tea and coffee, kitchen and washing machine.
**Guest Services:** Internet, business centre and secretarial services, valet parking, laundry and dry cleaning
**Health & Leisure Facilities:** Fitness studio, massage.
**Dining:** Coffee shop

**MAFRAQ HOTEL ABU DHABI**
T: +971 2 659 6666
F: +971 2 582 2895
mafraq@emirates.net.ae
www.mafraq-hotel.com

**Rooms:** 195 deluxe rooms, 50 executive rooms, four executive suites and the Emiri suite, including non-smoking, disabled-accessible and interconnecting rooms. Free in-room electronic safety box, equipment for making tea and coffee, 32-inch LCD TV with satellite channels
**Business & Conference Facilities:** 300-person capacity ballroom, 100-person executive lounge, 2 meeting rooms, boardroom, grand ballroom with private entrance and the latest audio-visual facilities.
**Guest Services:** 24-hour room service and reception, free shuttle bus to Abu Dhabi city centre and the beach, same day laundry and dry cleaning, ATM, gift shop, ladies' salon, car hire.
**Health & Leisure Facilities:** Fully equipped gymnasium, 390-sq-metre outdoor temperature-controlled pool with kids pool, racket club, sauna, jacuzzi, steam room and massage treatments.
**Dining:** The Burlington Grill (steaks and grilled seafood), the Olive Branch (Mediterranean and international), Oasis Courtyard (international snacks and salads), Hunter's B&R (British pub food), Rimal bar (international and Arabic snacks)

**MOUROUJ HOTEL APARTMENTS**
T: +971 2 641 3555
F: +971 2 641 3737
mhapt@emi.ae
www.mouroujhotelapartments.ae

Rooms: Specious, fully serviced apartments. All apartments have a self-contained office with desk and visitor chairs, 2 bathrooms, a living room with sofa bed and dining area, and a fully equipped kitchen with a washing machine and dryer.
Guest Services: Daily housekeeping, laundry and dry cleaning service, equipment for making tea and coffee, room service, mini-bar, taxi service to anywhere within the UAE, free valet parking, high-speed internet
Health & Leisure Facilities: Health club with sauna and steam room. Ayurvedic massage centre with professional masseur and masseuse.
Dining: Sadaf Restaurant serves buffet lunch and dinner with Iranian specialty dishes.

**ORIENTAL HOTEL APARTMENTS**
T: +971 2 678 0888
F: +971 2 677 7877
management@oriental-suites.ae
info@oriental-suites.ae
www.oriental-suites.ae

Rooms: One-bedroom king suites with separate sitting room, furnished dining area and fully equipped kitchen.
Business & Conference Facilities: High-speed internet and business centre

**TRIANON HOTEL**
T: +971 2 657 5000
F: +971 2 657 5111
reservations@trianon-hotels.com
www.trianon-hotels.com

Rooms: 152 rooms and suites
Business & Conference Facilities: Executive lounge and business centre with high-speed internet, fax, printing, and secretarial service. Two meeting rooms that accommodate around 15 people.
Health & Leisure Facilities: Fitness centre, pool, men's and women's sauna and steam room, women's salon
Guest Services: Concierge, limousine, valet parking
Dining: Lal Qila (Asian, Arabic and continental cuisines), Le Violette (fruit juices, coffee, tea and snacks), Argila (rooftop poolside waterpipe bar)

**AL REEM HOTEL APARTMENTS**
T: +971 2 494 5600
F: +971 2 643 4934
info@alreemhotelsuae.com
www.alreemhotelsuae.com

Rooms: 32 one-bedroom apartments and studio suites. Each apartment is fully furnished with king-sized beds, ensuite bathrooms, living room, dining area and fully equipped kitchen, and high-speed internet.

Guest Services: 24-hour reception and concierge, valet parking
Dining: Marmar (Arabic, Moroccan and Mediterranean).

**AL RAHA BEACH HOTEL**
T: +971 2 508 0555
F: +971 2 508 0444
info.alraha@danathotels.com
www.danathotels.com

Rooms: 278 rooms, suites and villas.
Business and Conference Facilities: Fax, Internet, photocopying and secretarial services, ballroom with 800-person capacity, 7 meeting rooms
Health & Leisure Facilities: Private beach, fully equipped gym, beauty salons, barber shop, 4 indoor and outdoor swimming pools, 2 kids' pools, 2 squash courts, 18-hole golf courses, massages and beauty treatments, aquamedic pool, sauna, steam room, jacuzzi.
Guest Services: 24-hour room service, reception, concierge, valet parking, babysitting, car hire, travel agency, gift shops, shopping, laundry services, wireless internet access, catering and events services.
Wining & Dining: Sevilla Restaurant, Azur Restaurant, La Piscine Pool Bar, Café Mozart, Black Pearl Bar, Enigma Nightclub, Al Manzil Clubhouse, Wanasah.

## SAADIYAT ISLAND

**MONTE-CARLO BEACH CLUB, SAADIYAT**
T: +971 2 656 3500
F: +971 2 656 0001
membership@montecarlobeachclub.ae
info@montecarlobeachclub.ae
www.montecarlobeachclub.ae

Health & Leisure Facilities: Workout room with modern equipment and a studio for classes. Spa facilities for men and women offer a wide range of treatments, a steam room, sauna, cold plunge pool, and jacuzzi. Infinity swimming pool surrounded by pool cabanas and a separate kid's pool.
Wining & Dining: Le Deck (cuisine from the Riviera, Lebanon and the Levant), Bubbles Bar (lounge serving a selection of refreshments), Sea Lounge, Library Lounge (reserved for yearly members only).

## YAS ISLAND

**YAS VICEROY ABU DHABI**
T: +971 2 656 0000
F: +971 2 656 0001
www.viceroyhotelsandresorts.com/abudhabi

Rooms: 499 rooms and suites
Business & Conference Facilities: Grand ballroom, 10 meeting rooms, executive lounge and business centre
Health & Leisure Facilities: Fitness centre, pools, spa with 10 treatment rooms, sauna and steam room.
Guest Services: Concierge, limousine, valet parking
Wining & Dining: 7 restaurants, 2 bars, lobby patisserie


Oriental Hotel Apartments


Trianon Hotel


Monte-Carlo Beach Club


Al Raha Beach Hotel


Al Reem Hotel Apartments


Qasr Al Sarab Desert Resort by Anantara

## AL AIN

**AIN AL FAIDA, ONE TO ONE HOTEL & RESORT**
T: +971 3 701 4444
F: +971 3 701 4445
info.ainalfaida@onetoonehotels.com
www.onetoonehotels.com

Rooms: 26 rooms and 57 villas with an in-room safe, 39-inch TV, mini-bar high-speed internet.
Business & Conference Facilities: Business centre, 3 meeting rooms, ballroom accommodating up to 250
Guest Services: Valet parking gift shop, babysitting laundry and dry cleaning service, doctor on call, airport transport and concierge desk.
Health & Leisure Facilities: Gym, swimming pool, steam room, sauna, jacuzzi, spa and beauty salon, ladies swimming pool tennis courts, jogging track, boating lake
Wining & Dining: Zeitouneh, Glass Restaurant, 18 OZ Burger, the River House, T-Garden.

## LIWA DESERT

**QASR AL SARAB DESERT RESORT BY ANANTARA (5 STARS)**
T: +971 2 886 2088
F: +971 2 886 2086
infoqas@anantara.com
qasralsarab.anantara.com

Rooms: 206 rooms, suites and villas 10 luxury pool villas separate from main building
Business & Conference Facilities: Business centre, Wi-Fi, 1 ballroom and 2 meeting rooms
Guest Services: Library, recreation desk.
Health & Leisure Facilities: Spa, hammam, massage, salon, pool, fitness centre, tennis, archery, dune bashing, camel rides, desert walk, mountain biking, falconry and Liwa tour, kids' club, teens' club.
Wining & Dining: Al Waha (Middle Eastern and international cuisine), Suhail (upscale steakhouse), Al Ghadeer (light meals & Mediterranean cuisine), Al Liwan (lobby lounge) and Dine by Design

## MIRFA

**MIRFA HOTEL**
T: +971 2 883 3030
F: +971 2 883 6400
es@mirfahotel.com
www.mirfahotel.com

Rooms: 114 rooms.
Business & Conference Facilities: Internet, copying faxing, scanning, Al Majlis ballroom and dining room.
Health & Leisure Facilities: Gym sauna, steam room, pool, tennis, sports facilities
Guest Services: Free parking, doctor, gift shop, florist.
Wining & Dining: Al Manara Restaurant, Sports Pub and Lounge, the Garden Terrace and Pool Bar

## RUWAIS

**DANAT JEBEL DHANNA RESORT**
T: +971 2 801 2222
F: +971 2 801 2333
reservations.jebeldhanna@danathotels.com
www.danathotels.com

Rooms: 109 rooms, suites and villas.
Business & Conference Facilities: All essential services including high-speed internet. A range of conference and meeting facilities for up to 1000 people.
Health & Leisure Facilities: Fitness centre, temperature-controlled swimming pool, sauna, tennis, squash, private beach, water sports, beach volleyball massage and activities for children
Guest Services: 24-hour room service, business centre, limousine and car hire, valet parking, salon and gift shop.
Wining & Dining: Zaitoun, Tides, C View l'Attitude and Waves Pool Bar

While many Emiratis prefer to wear traditional dress, Abu Dhabi is fairly relaxed and Western clothing – particularly conservative business attire – is acceptable. Visitors should make it a point to be aware of proper etiquette regarding titles and social conventions

Visitors from the US, as well as much of Western Europe and East Asia, can obtain visas upon arrival in the UAE. Travellers from other countries should check their visa status before departure, as they may need to be sponsored and purchase a visa in advance

## FEDERAL GOVERNMENT

Central Bank of the UAE
(02) 665 2220
Ministry for Cabinet Affairs
(02) 445 0777
Ministry of Defence
(02) 446 1300
Ministry of Energy
(02) 626 2288
Ministry of Environment & Water
(02) 444 4747
Ministry of Finance & Industry
(02) 672 6000
Ministry of Health
(02) 633 4716 / 633 0000
Ministry of Economy
(02) 626 5000
Ministry of Culture, Youth & Community Development
(02) 446 6145
Ministry of Interior
(02) 441 4666
Ministry of Justice
(02) 692 1000
Ministry of Labour & Social Affairs
(02) 449 4293
Ministry of Public Works
(02) 626 0606
National Transport Authority
(02) 418 2222
Supreme Council & GCC Affairs
(02) 626 4555
Telecommunications Regulatory Authority
(02) 626 9999

## ABU DHABI GOVERNMENT

Government of Abu Dhabi
800 555
Abu Dhabi Education Council
(02) 615 0000
Abu Dhabi Executive Council
(02) 668 8888
Abu Dhabi Food Control Authority
(02) 495 4000
Abu Dhabi National Consultative Council
(02) 672 6555
Abu Dhabi National Exhibitions Company
(02) 444 6900
Abu Dhabi National Oil Company
(02) 602 0006
Abu Dhabi Ports Company
(02) 695 2000
Abu Dhabi Urban Planning Council
(02) 409 6000
Abu Dhabi Tourism & Culture Authority
(02) 444 0444
Abu Dhabi Water & Electricity Authority
(02) 694 3333
Crown Prince's Court
(02) 668 6666
Department of Economic Development
(02) 672 7200
Department of Municipal Affairs
(02) 678 5555
Department of Transport
(02) 656 6666
Executive Affairs Authority
(02) 495 1999
Western Region Development Council
(02) 404 4000

## BUSINESS ASSOCIATIONS

Abu Dhabi Chamber of Commerce & Industry
(02) 621 4000
American Business Group of Abu Dhabi
(02) 631 3604
British Business Group
(02) 445 7234
French Business Group
(02) 674 1137
German Business Council
(02) 645 5200
Swiss Business Council
(02) 653 8181

## FOREIGN MISSIONS

Algeria
(02) 444 8943
Argentina
(02) 443 6838
Australia
(02) 401 7500
Bahrain
(02) 665 7500
Belgium
(02) 631 9449
Brazil
(02) 632 0606
Canada
(02) 694 0300
China
(02) 443 4276
Egypt
(02) 444 5566
France
(02) 813 1000
Germany
(02) 644 6693
Hungary
(02) 676 6150
India
(02) 449 2700
Indonesia
(02) 445 4448
Iran
(02) 444 7618
Italy
(02) 443 5622
Japan
(02) 443 5656
Jordan
(02) 444 7100
Kuwait
(02) 447 7146
Lebanon
(02) 449 2100
Malaysia
(02) 448 2775
Morocco
(02) 443 3973
Oman
(02) 446 3333
Pakistan
(02) 444 7800
Palestine
(02) 447 1440
Qatar
(02) 449 3300
Saudi Arabia
(02) 444 5700
South Africa
(02) 447 3446
Spain
(02) 626 9544
Syria
(02) 444 8768
United Kingdom
(02) 610 1100
United States
(02) 414 2200

## CONSULTANCY & ACCOUNTANCY

Ernst & Young
(02) 627 7522

## LEGAL SERVICES

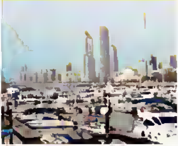
Reed Smith
(02) 622 2636

## CAR HIRE

Europcar
(02) 626 1441
Progress Rent A Car
(02) 622 9943

## BANKS

Abu Dhabi Commercial Bank
(02) 696 2222
Abu Dhabi Islamic Bank
(02) 610 0104
Barclays Bank
(02) 495 8555
First Gulf Bank
600 52 5500/ 600 54 4400
HSBC
800 4722
National Bank of Abu Dhabi
(02) 611 1111



# Facts for visitors

## Useful information for newcomers

**DRESS:** Many Emiratis prefer to wear traditional garb. For those living in Abu Dhabi, the dress code is relatively relaxed when compared to neighbouring states. Western-style attire is acceptable, but women should be careful to adhere to a conservative dress code. Business suits are the standard clothing for most meetings.

**ETIQUETTE:** Although foreign influences in Abu Dhabi have contributed to the country's liberal atmosphere one should still be careful to show respect to local social convention. When offered a tea or coffee in the emirate, it can be viewed as impolite to refuse, while passing or receiving anything with your left hand can be viewed as offensive. Also, titles are important. "His excellency" is used when addressing ministers, while "sheikh" (males) and "sheikha" (females) are honorific titles for members of the royal family.

**VISAS:** With the exception of GCC citizens, all nationalities must obtain a visa to enter Abu Dhabi. Nationals from the US, Western Europe and East Asia can obtain a visa upon arrival, while citizens from all other countries, including Canada, need the sponsorship of a UAE resident, hotel, travel agency or company for a non renewable visa costing Dh100 ($27), valid for 30 days. It is advised that all non GCC nationals check with their nearest UAE embassy or consulate to keep abreast of changes in visa requirements.

**LANGUAGE:** Abu Dhabi is renowned for the diversity of its workforce. For this reason, English is commonly spoken at the workplace, along with Arabic, the country's national language. Legal documents have to be written or translated into Arabic before they can be submitted to official government agencies.

**BUSINESS HOURS:** Office hours in the UAE vary but are commonly between 8am and 5pm, with the exception of government offices, which operate from 7.30am until 2pm. The workweek in the UAE starts on Sunday and finishes on Thursday. During the month of Ramadan, working hours vary so it is advised to check in advance. Muslim public holidays occur 12 days earlier each year and are calculated according to the lunar calendar.

**CURRENCY:** The UAE dirham (AED) is the national currency of the UAE. Banknotes come in 5, 10, 20, 50, 100, 200, 500 and 1000 dirhams, while coins are available in 25 and 50 fils, as well as 1 dirham. The currency is pegged to the US dollar at a rate of $1:Dh3.67. Most airport exchanges handle foreign currencies, but it is advisable to convert more obscure currencies into USD or GBP before arrival. Credit cards are widely accepted; however, it is sensible to keep some cash on hand.

**TIPPING:** The majority of restaurants add a service charge of between 10% and 15%, eliminating the need for tipping unless particularly good service warrants it.

**TRANSPORT:** Car hire establishments can be found at the airport or at several locations throughout the country. Another very popular way to get around in Abu Dhabi is by taxi. Taxi stands are only available at shopping centres, however, passengers can always hail a taxi on the street or book one in advance. Many drivers speak Arabic, as well as English, Urdu or Filipino. Bus service in Abu Dhabi is ubiquitous and there are a number of services with routes to Al Ain and Dubai.

**COMMUNICATIONS:** The country code for the UAE is +971, followed by the national codes 02 for Abu Dhabi City and Al Gharbia, and 03 for Al Ain. GSM SIM cards can be obtained through Etisalat or du, but be sure to bring your passport with you. To get a phone and internet connection, residents have to visit a provider's branch and bring a copy of their passport.

**HEALTH:** Both public and private health facilities in UAE are excellent. UAE nationals enjoy special benefits in form of full medical coverage provided by the state; however, visitors should make sure they have comprehensive health coverage prior to travel as payments are expected upon treatment.

**ELECTRICITY:** Electrical outlets in the UAE supply electricity of 220/240V at 50 Hz, using the same three-pin system as in the UK.

**LOCAL TIME:** The UAE does not adjust for daylight savings. Depending on the time of year, the Abu Dhabi time is either three or four hours ahead of GMT.